

ARMY

Vol. 37 No. 1 • 1959 • 60

**AUSA
ANNUAL MEETING**

*What Is a
Modern Army?*



Articles by

S. L. A. Marshall
Hanson W. Baldwin
Raymond L. Garthoff

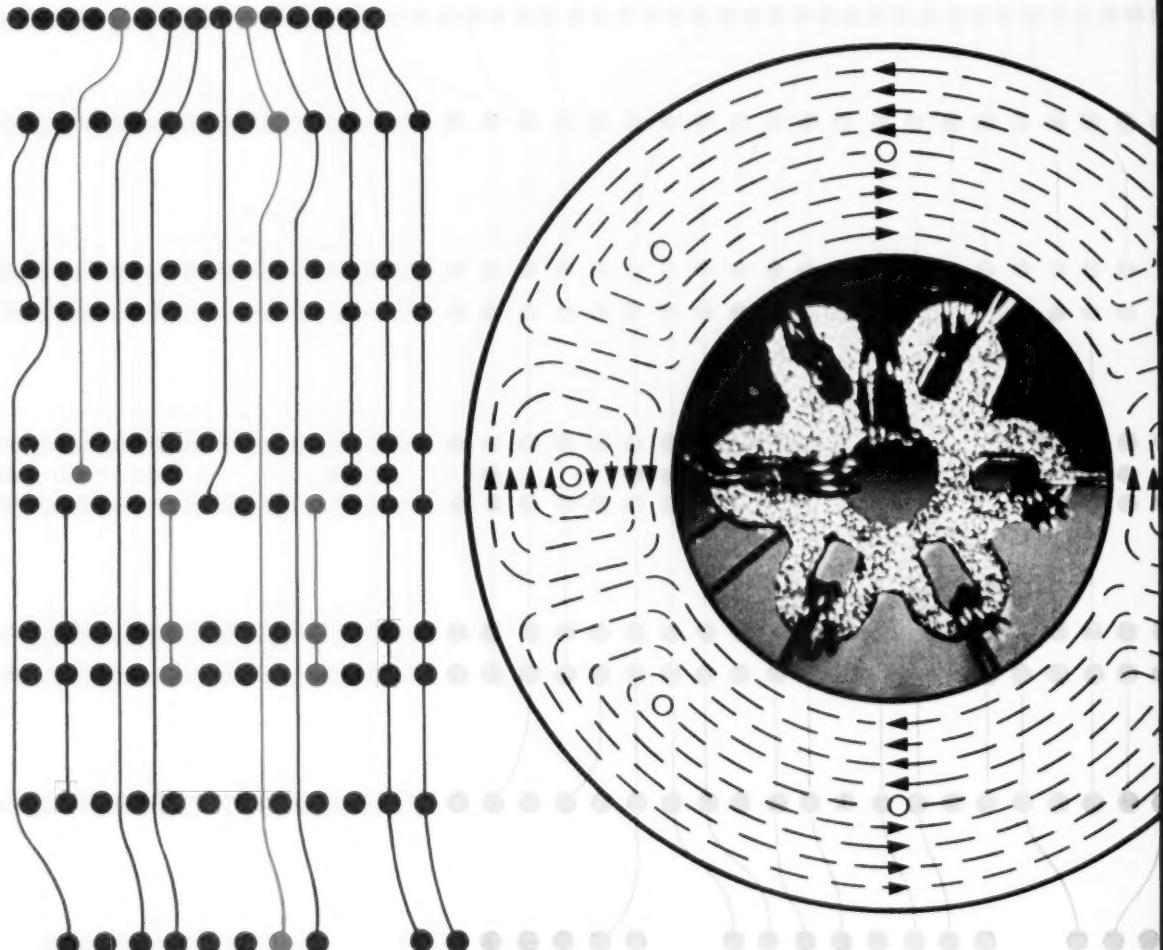
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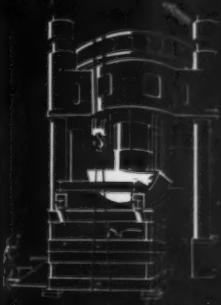
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Hanson W. Baldwin
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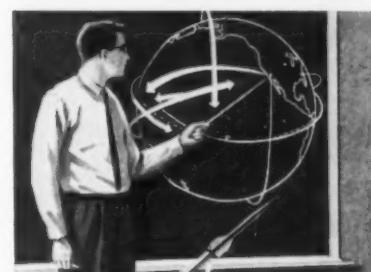
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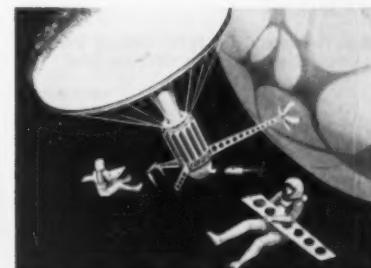
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magazine of the
ASSOCIATION OF THE UNITED STATES ARMY

VOL. 10 No. 1 AUGUST 1959

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A PROFESSIONAL PUBLICATION DEVOTED TO THE ADVANCEMENT OF THE MILITARY ARTS AND SCIENCES AND REPRESENTING THE INTERESTS OF THE ENTIRE U. S. ARMY

ANNUAL MEETING THEME: What Is a Modern Army?

THE PLACE OF MAN IN A MODERN ARMY. National power has no other linchpin than an army of trained, modernly armed men. *Brig. Gen. S. L. A. Marshall* 26

U. S. STRATEGY. The Prospects of the Tomorrows. *Hanson W. Baldwin* 32

SOVIET STRATEGY: Flexibility, Firepower, Follow-up. *Raymond L. Garthoff* 38

IMAGE OF THE NATION UNDER ARMS. The tie that binds the complex organization we call an army is the image of the military determination of the American people. *Captain Robert DeMarcellus* 44

TOO MUCH TACTICAL COMMUNICATIONS-ELECTRONICS. The field army is spinning a web of communications that may enmesh it. *Col. B. H. Pochyla* 46

VASQUEZ. How a soldier is made. *Lt. J. D. Lewis* 49

AMERICANS IN BERLIN. We can be proud of our representatives who serve behind the Iron Curtain. *Don Belding* 54

OUR GREATEST CHALLENGE. The modern Army's task of creating fighting units in less time is a challenge. *Maj. Murray W. Williams* 59

TEND YOUR FENCES. Good neighborliness doesn't happen, it's created. *SFC David L. Stanley* 62

BALANCED SUPPORT FOR FIGHTERS. How the Quartermaster Corps is modernizing its field supply services. *Lt. Col. Walter L. Spaulding* 71

COMBINED ARMS EMPHASIZED AT CGSC CONFERENCE. A report from Fort Leavenworth. 88

DEPARTMENTS

The Month's Mail	6	Irons in the Fire	92
The Army's Month	17	The Month's Books	95
The Month's Ceremonies	78	Report from AUSA	100

COVER

ASPECT OF A MODERN ARMY. *Lt. Col. Robert B. Rigg*



and there's a BELL in the Picture

Success of our Army on future battlefields depends largely on its ability to move swiftly and decisively—the threat of nuclear weapons makes mobility imperative. America's new Pentomic Army is superbly trained and equipped, but above all, prepared to strike on short notice. As would be expected, much of its facility of movement is due to its low-flying air vehicles which can escape enemy detection. They're vehicles such as the Bell helicopter that can execute small scale air-landed operations, move reserves, shift or reassigned units to the area of decision. Bell's tried-and-proved H-13H helicopters and the new Army-designed turbine-powered Bell HU-1 are vital components of the Army's improved capability. Requiring little maintenance, able to take off or land anywhere, Bell helicopters literally "live with the Army" in the field.

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THE MONTH'S MAIL

NEW SOLDIER SYNDROME?

• I enjoyed Captain Little's "Finding a Buddy" in the June issue. The application of the scientific disciplines to areas in which opinion prevailed can only help us in the long run. However, in making his point that the soldier's membership in a buddy relationship explains how he performs in combat, it to me appeared that Captain Little overlooked the conclusions of a previous and equally scientific researcher.

Captain Little says that his buddy theory, in effect, demonstrates that previous theories of performance based upon patriotism, identification with regiment and division and "living up" to the code of "being a man" are false. I have no quarrel on the score of patriotism or unit identification, but there is contrary evidence concerning the third theory.

Major Raymond Sobel, a psychiatrist with Fifth Army in Italy, published an article in the U. S. Army Medical Bulletin in 1949 called "The Old Sergeant Syndrome." He reported the results of a study of men who had, after long and exemplary combat service, eventually succumbed to what was then called combat fatigue. These were not the mental cripples. In fact, their backgrounds showed no "psychiatric flaw" which might lead to a breakdown; they were the backbone-of-the-unit type. The question, Major Sobel wrote, "was not why they broke, but how they lasted so long."

The psychiatrist concluded that there was a defense in depth against the stress of combat. The first defense, and the first to be breached, was patriotism and the Four Freedoms sort of thing. Next was the immediate hope, such as "We will be taken out of the line once we reach Rome." Finally, there was a sense of honor which was bound up with loyalty

to the section or the squad. These soldiers told the psychiatrist they carried on because they had an idealistic image of what a soldier should be. Their relationships with the other members of their unit were based upon the realization they had survived only because each had helped the other to do so. The only honorable way out was death or a wound.

Much of this is close to what Captain Little said, and perhaps the two viewpoints are not irreconcilable. But to me, Major Sobel's "old sergeants" (many of whom were privates, by the way) and Captain Little's "heroes" do not sound like the same men. I can't believe the American soldier changed this much between World War II and Korea. When it comes to choosing between a sociologist who gives the soldier feet of clay and a psychiatrist who gives him honor and masculinity, I have to side with the latter.

MAJ. JOHN R. MAHER, JR.
Syracuse, N. Y.

NAME AND DEFINITION

• Colonel Heymont's "What's Combat Surveillance?" (June) was somewhat shocking, not because the author did not know the answer to his question, but because he is on the staff and faculty of a school which certainly does.

The Army has had an active major research and development program in combat surveillance (or battlefield surveillance, as it was first called) since 1952, when a number of studies showed that our capability to observe the enemy and keep track of his activities was inadequate for effectively using our growing firepower. A major study of many months by a group of more than a hundred top-flight scientific and technical people examined ways and means

of applying all available scientific techniques to the problem of maintaining a "continuous (all weather, day and night) systematic watch over the battle area." This study, called The Eyes of the Army, or TEOTA, compiled a very comprehensive catalog of all the technical means that might be used to achieve this end. In addition, it recommended a large continuing R&D effort be established in this field, preferably at a major university, to find more effective technical methods. Consequently, at the University of Michigan, Project Michigan was established and has been doing R&D in this field since 1953.

In 1957, the Chief of R&D established an *ad hoc* study group to reexamine the efforts being made. The report of this study group, issued in December 1957, was given a most extensive and thorough staffing, comments being obtained from all Department of the Army staff agencies, CONARC headquarters, schools and boards (including CGSC), and overseas commands. The Assistant Chief of Staff for Intelligence, the Deputy Chief of Staff for Operations, and the Chief of Research and Development considered the report and all comments in detail. The Chief of Staff approved the findings of the study as modified by the staff, and ACSI prepared the final documents for dissemination. This document, "Field Army Combat Surveillance, 1960-1970" (1 September 1958), was transmitted to all major commands by order of the Secretary of the Army, on 2 October 1958, as "the current official Department of the Army guidance on this subject."

According to this document: "Combat surveillance is a continuous (all weather, day and night) systematic watch over the battle area to provide timely information for tactical ground operations. The functions performed by combat surveillance are primarily collecting and reporting information for the combat intelligence system. The collection effort is directed by the intelligence staff officer, who processes surveillance information along with information collected from all sources and agencies to produce combat intelligence. Combat surveillance provides an improved means to satisfy the needs for information of the command."

The combat surveillance program is of the highest priority and most essential

ARMY is published monthly by the Association of the United States Army. Publication date: 25th of preceding month. Publication, Editorial and Executive Offices: 1529 Eighteenth Street, N.W., Washington 6, D.C. Copyright ©, 1959, by Association of the United States Army. Second-class postage paid at Washington, D.C. and at additional mailing offices.

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"Under the code name *Banyan Tree* the Strategic Army Corps (STRAC) and the Tactical Air Command (TAC) joined in a major Army-Air Force exercise that involved the rapid reinforcement of forces in the Caribbean which were presumed to be fighting an Aggressor force intent on seizing the Panama Canal.

"The key phase of the operation was the airlift of the reinforced 2nd Battle Group, 501st Infantry, of the 82nd, non-stop from Fort Bragg, North Carolina, to an airdrop in the maneuver combat zone at Rio Hata, Panama, 75 miles southwest of Panama City and the Canal Zone.

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"The uniform excellence of the airdrop, both of personnel and equipment, proved how rapidly combat units can be assembled in battle areas ready to fight the enemy. The clocklike precision of the air-transported men and equipment indicates a continuing advance in our ability to reinforce and sustain combat elements when they have been committed."

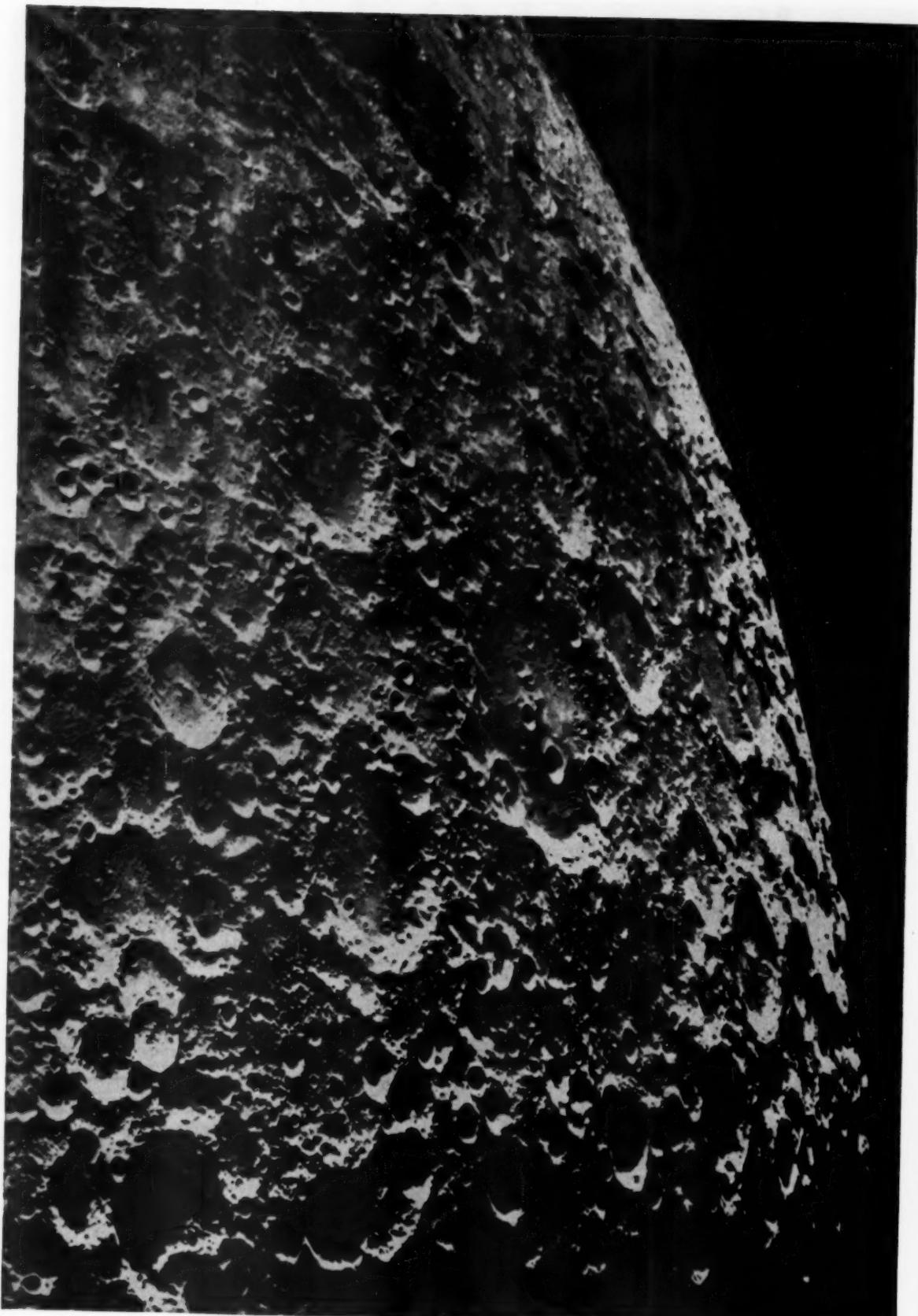
Excerpts courtesy ARMY Magazine

Left: "Parachutes coming down after a nonstop flight from the piney woods of North Carolina to the palm-fringed jungles of Panama"

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to the Army. Obviously, our great new long-range weapons can only be as effective as our ability to find and determine the location of targets for them. It is a prime function of combat surveillance to obtain the information required for target acquisition.

I hope that Colonel Heymont, and others, will not fall into the trap of further fighting the dead horse of "name and definition" in this field, but will make a real effort to find out what is being done in combat surveillance to enhance our combat intelligence, and hence our fighting capabilities. Combat surveillance will provide more and better technical tools for combat intelligence, including target acquisition. Consequently, it is an activity that deserves support from all units and agencies of the Army.

COL. WILLICE E. GROVES
USA Combat Surveillance Agency
Arlington 1, Va.

NO IDLE CHATTER

- With regard to Captain Robert S. Harper's article, "The Tip of the Sword" [May], I would like to offer a few remarks.

First, I had the extreme pleasure of serving my first troop duty as an officer in Captain Harper's Company A, 72d Tank Battalion, in Korea. Secondly, I must admit that he personifies all that his article said. Captain Harper took time to teach officers and noncommissioned officers the rudiments of fighting in Korea which he himself had learned in 1950. I have seen this officer display magnificent courage on and forward of the MLR, always setting the perfect example.

Captain Harper's thoughts are not idle chatter, and all soldiers might well profit from his article.

CAPT. JOHN A. ALBREE
Brussels, Belgium

TRANSPORTATION'S ANSWER

- I pick up the gauntlet thrown down by Major Oren W. Bryant in "Why Don't the Tech Services Write?" (June).

Although the Transportation Corps is firmly convinced that "programming" is the only answer to the problem of providing a "flexible, responsive" transportation service, apparently we have not sold this scheme to our comrades in the other technical services. I'll grant that perhaps we have not fully considered their problems in this regard.

I shall present only our doctrine and our need, together with some of the more obvious advantages which can accrue to shipping services and commanders if they utilize this "management tool" to the maximum extent.

All supply services are distributors; these distributors cannot perform their mission efficiently without a foreknowl-

edge of the requirements for their goods. The Transportation Corps in performing its transport mission is the middleman, whose services are indispensable to distribution. In wartime, transportation is a precious resource and cannot be frittered away in response to whims. If these propositions are acceptable, it follows that transportation can be positioned effectively only as the result of an accurate forecast of requirements.

The doctrine of the Movement Program states that shippers must forecast daily shipping requirements by class of supply, tonnage, origin and destination for a stated period of time normally weekly, biweekly or monthly. This information constitutes the command supply plan, which is developed by the G4 or Director of Services. The supply plan becomes a movement plan when the staff transportation officer assigns a mode for each shipment in accordance with (1) the needs of the shipper, and (2) the availability of transport capacity. The movement plan, when it is authenticated by the G4 or Director of Services, becomes the Movement Program. After authentication and publication, the Movement Program is disseminated to all concerned.

The question now arises: "What's in it for me?" The answer is simple: The Movement Program is a "reservation"

of capacity—a guarantee, if you will, that transportation will be available for shipments appearing on the program. Ah, there's the rub!—the Movement Program is only a "reservation." You must *pick up* the ticket before we dispatch the vehicle. A telephone call to the transportation office that serves you will put into motion the wheels and wings of transportation.

What happens to shipments that are not programmed? Briefly when a request is received for a shipment, which is not included in the Movement Program, we must find the capability and alert the mode *before* we can accept the job. One of the best examples of this type of operation, is the method by which movers of household goods schedule long-distance movements. They use a "scheduling" system, which forecasts the location of shipments along the route of other known requirements. If you call sufficiently in advance they can and usually do meet your desires. Have you ever tried calling on short notice? Because they are unable to move you the day after tomorrow, without temporarily warehousing your goods, does not indicate inefficiency. On the contrary, it simply means that no commercial transportation company can remain in business by having its equipment positioned on an if-as-or-when basis.

The Transportation Corps is in business for one reason: to provide the best possible transportation service. We cannot accomplish this mission with a catch-as-catch-can procedure. We are looking forward to the day when electronic machines will reduce the programming lead time to 48 hours, from input to implementation.

I rest my case for the present in the hope that further discussion, rebuttal, or downright disagreement will result in a better understanding and appreciation of the need for the programming of your movements to assure that you will receive the best transportation service.

CAPT. HENRY O. KEMP, III
Transportation School
Fort Eustis, Va.

STAFF STRANGULATION

• My sincere thanks and congratulations to Colonel Curtis for his outstanding article "Pentagon Platoon Leadership" (June). This article states a case that's been crying for attention since before World War II when the Army fell victim to Parkinson's disease along with the other services, and "alphabets" of Government. Whether or not the Pentagon will heed remains to be seen. From where I sit, as commander of an undermanned training regiment, this seems extremely doubtful.

A perfect example of how we are being strangled by our staffs is the plan for reducing the Army to meet its 3.5 per cent reduction. A combat division is being inactivated, another is being placed in standby, and other cuts are being passed on to the troop units. As I write, my own regiment, so woefully short-handed as to have been the subject of a formal complaint to the Army's Inspector General, is preparing to lose 40 officer and 39 noncommissioned officer spaces during FY 60. That equals a 32 per cent reduction in officers and 4.4 per cent in enlisted spaces.

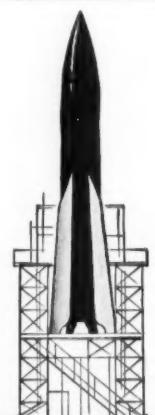
I understand we are about to see another example of staff strangulation, in our training schedules. Those of us who are on the ground attempting to fulfill the objectives of ATP 21-114 in eight short weeks—teaching fundamentals of soldiering, basic battlefield formations and combat survival—are firmly convinced that basic combat training must be increased from eight to about 14 weeks in order to do the job properly. This, of course, would put us more in line with Marine Corps training and tend to eliminate the indictment of Army training as reported by Eugene Kincaid in *In Every War But One*. Have the staffs profited either from experience at the working level or from a reading of *In Every War But One?* Obviously not. The word we get at our low level is that basic combat training is to be reduced from eight to seven weeks.

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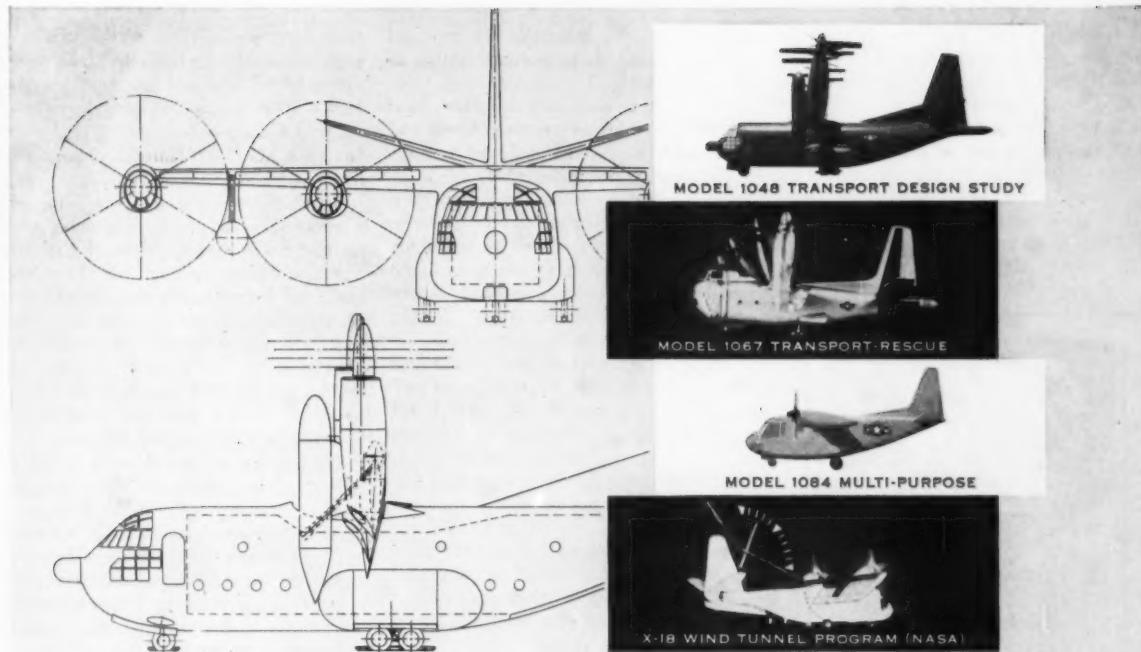
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Lastly, we find staff strangulation in our personnel handling. On 30 June 1956 Mr. Ralph J. Cordiner enunciated his four "most important aspects of job satisfaction": a feeling of belonging (pride and continuity in the job); individual rights and dignity (status and respect as a person rather than a number on a time block or IBM card); good bosses (superiors who command respect, maintain firm discipline and treat subordi-

nates fairly); compensation (a standard of living sufficient to maintain status in the community).

Despite the hard, cold fact that these four simple rules are common sense and basic, each is violated daily as a result of the gigantic octopus of staffs above us. To make matters worse, instead of getting from behind their desks, now the staffs have sent us some 80 questions so they can arrive at factors to evaluate morale. Anyone with command experience can say, "If morale is low, fire the commander." It's really that simple.

I'm sorry if I may have digressed, but I did want to write in to support and congratulate Colonel Curtis. Also, I still think of what Major General William F. Dean said at Camp Roberts in 1955. After repeatedly receiving negative answers from various Sixth Army and Fort Ord staff officers to his common-sense proposals for use in establishing the summer training camp for the National Guard and Reserve, General Dean said, "The Army has certainly progressed backward in the last fifteen years."

COL. FRANKLIN R. SIBERT
Fort Leonard Wood, Mo.

YELLING WON'T HELP

- Sergeant Forrest K. Kleinman in "Brothers-at-Arms" (April) mentioned the horrible examples of what can come off when people can't talk to one another, as in Korea early during the war. Some of it must have impressed the ROK Army. From the sound of it, Sergeant Kleinman was in Chosin shortly after the stuff got flying. I arrived after things

were more settled. One of the results of early confusion was that the ROKs sorted out a lot of educated lads and commissioned them in the Interpreters' Corps.

After a short period with a U. S. outfit, I got into KMAF, with a faint idea of what KMAF was and no idea of how to speak Korean. On my first job I was introduced to a young lieutenant with an odd collar badge. Most of their insignia was based on ours, but the parrot, gun, and leafy branch was entirely new to me. Turned out he was Ko Rhee Sun, a *pongyuk chungwhi* (interpreter lieutenant). We worked together for quite a while, and though some of his ideas of English grammar were highly original, he really earned his pay.

Having Ko on hand made a lot of difference. Sometimes he was a middleman in the business, at other times a noise filter. I strongly suspect he screened out a lot of cuss words from my dialogue, and there were a couple of times when I would have liked to know what the company commander was saying because it looked as if he was about to bust a gasket. Generally, though, the results were good.

Later some people turned up who knew a little English and they helped a bit because they didn't use the long words the educated Lieutenant Ko fan-ci-ed.

Very few American soldiers were proficient in Korean. Once one of these, a Korean-Hawaiian, was at the same place I was. The local PW interrogators and I used to take turns going for rations every five days. When I went, the draw was just what the breakdown called for. When Master Sergeant Hong went, the issue contained everything but the store-keeper's teeth, since he could toss Korean with the best.

Hong's assignment was one job where no one else would do. The Army saved its few good interpreters for such duties, but it could have used others who did not speak the tongue so well for less accurate work.

The ROKs had a major problem in the same language barrier, and their use of commissioned interpreters was a field expedient, and it worked pretty well. They had no command authority, but ranked as officers and this didn't hurt them in their work. They varied from poor to highly competent. The average interpreter did a good deal to help things out. Conditions were bad with them there. Without these people, conditions would have been a lot stiffer.

No matter how loud you yell, your English becomes no more intelligible. We might take a hint from the ROKs and use our trained language personnel as a group.

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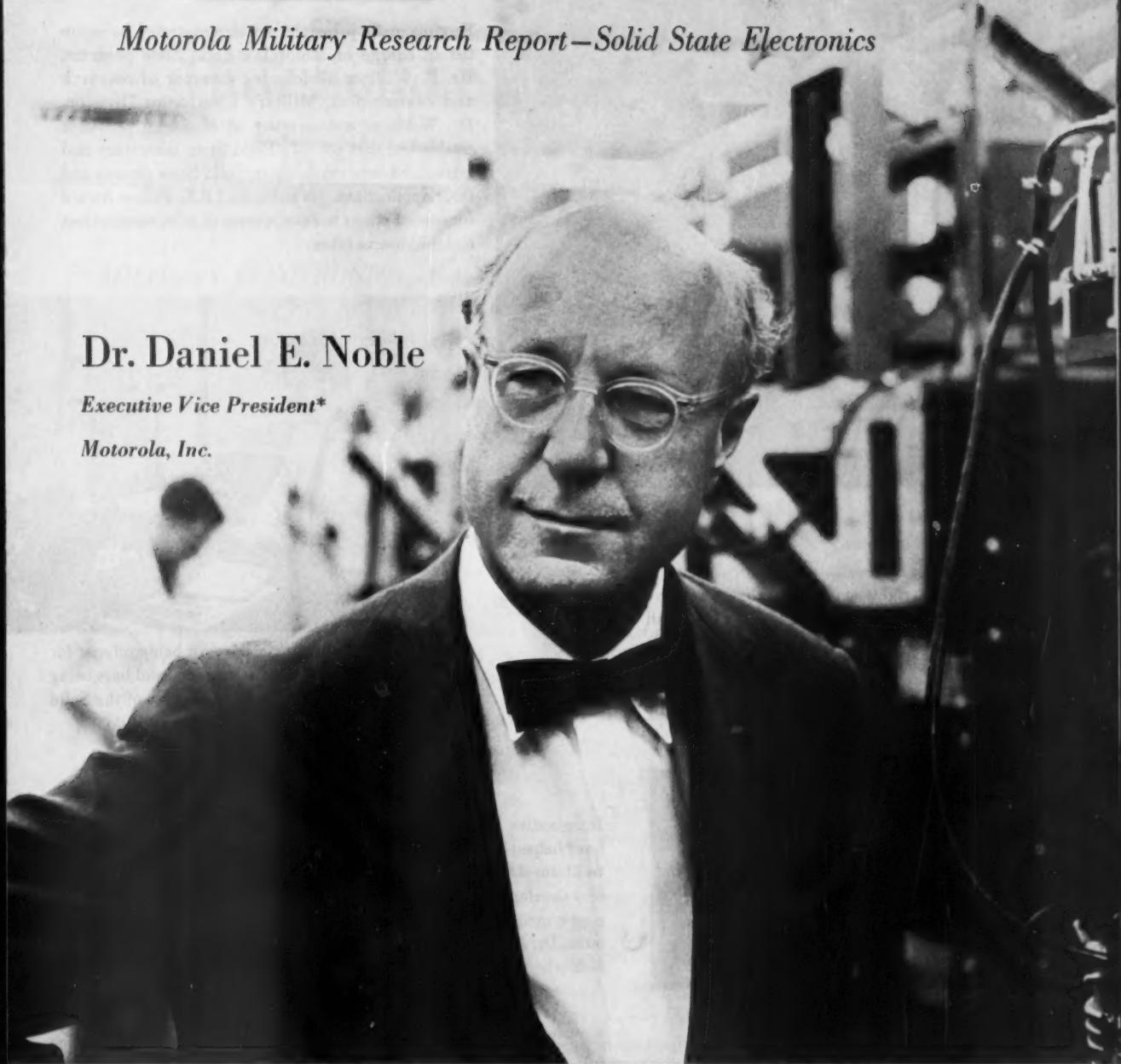
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Motorola Military Research Report—Solid State Electronics

Dr. Daniel E. Noble

*Executive Vice President**

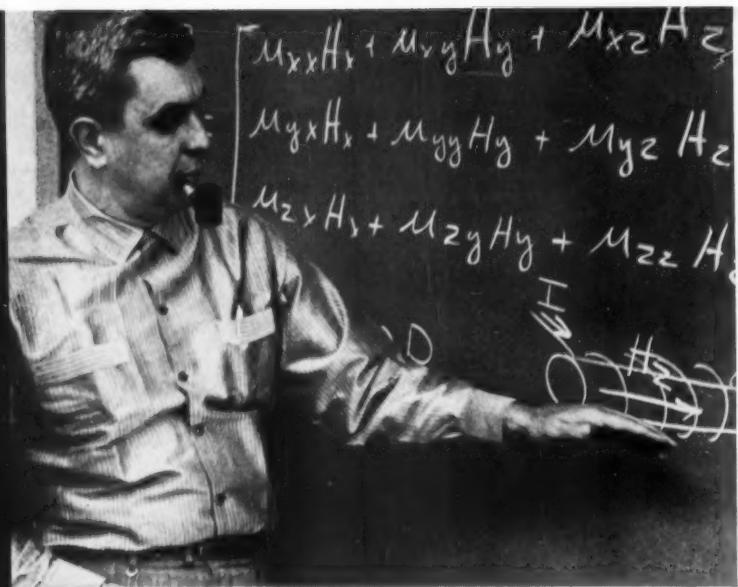
Motorola, Inc.



*DR. NOBLE IS VICE PRESIDENT IN CHARGE OF THE COMMUNICATIONS AND INDUSTRIAL ELECTRONICS DIVISION,
THE SEMICONDUCTOR PRODUCTS DIVISION AND THE MILITARY ELECTRONICS DIVISION OF MOTOROLA, INC.

**"In this new era, Solid State Electronics will spread
its influence to every form of human endeavor and
will contribute substantially to scientific achieve-
ment in all fields."**

Dan Noble



Ferrimagnetic principles are demonstrated by scientist in charge of Motorola's Solid State program, Dr. H. William Welch, Jr., director of research and development, Military Electronics Division. Dr. Welch as a University of Michigan professor established that school's Solid State laboratory and introduced new curricula in Solid State devices and their applications. He holds an I.R.E. Fellow Award for contributions to development of solid state devices and microwave tubes.

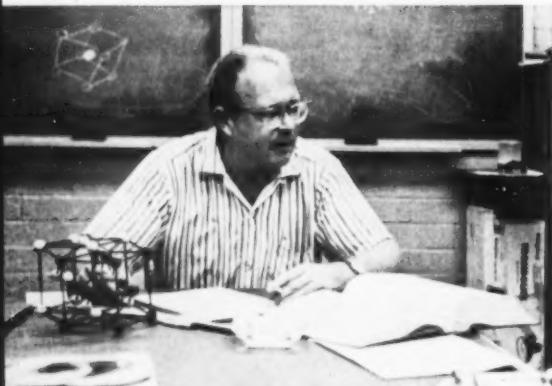


John C. Cacheris, right, manager of the Microwave Applications Laboratory, and a member of his staff inspect a parametric amplifier, one of several devices now being produced by Motorola's Solid State Dept.



Typical of solid state materials now being offered for sale by Motorola are these ferrite rods and bars being examined by Donald L. Fresh, manager of the Solid State Materials Laboratory.

Imaginative leadership plus the most modern of laboratory facilities have helped foster a creative environment that is attracting top talent to Motorola. Here, Dr. Arthur L. Aden, associate director of research and development for Motorola's Military Electronics Division, shows a new member of his staff equipment for photographing printed circuits. Dr. Aden welcomes inquiries from qualified engineers and physicists who would like to join his department.



James R. Black, manager of Motorola Microelectronics Laboratory, heads work which leads toward the mass production of economical microelectronic components so small that several would fit on the period that ends this sentence.

How Solid State Electronics is shaping the future

MILITARY ELECTRONICS—industry as well—is being radically changed by rapid advances in solid state technology. Predicted for the near future are computers small enough to fit in the palm of a hand, receivers that will detect the weakest signals from distant satellites.

Motorola's highly experienced Solid State Department, in close cooperation with the Semiconductor Products Division, is advancing the state of the art on several fronts, one of the most promising of which is microelectronics.

By making use of crystalline functional circuit elements created in volume quantities by surface etching or film deposition methods, Motorola researchers anticipate they will soon be able to design equipment with component densities of tens of millions per cubic foot.

This high density will result in a great reduction in systems and computer size coupled with a significant increase in reliability, and it will lead to the development of self organizing computers for such complex tasks as the solution of military logistics problems and space guidance.

In microelectronics and in other areas, Motorola scientists, including those of the Semiconductor Division, are investigating the ferroelectrical, ferrimagnetic, piezoelectrical and pyroelectrical characteristics of monocrystalline and polycrystalline solids. New materials possessing these useful characteristics are created and produced in the Materials Laboratory. Typical applications: newly developed ferroelectrical or piezoelectrical materials to be used in transducers for submarine detection.

talline and polycrystalline solids. New materials possessing these useful characteristics are created and produced in the Materials Laboratory. Typical applications: newly developed ferroelectrical or piezoelectrical materials to be used in transducers for submarine detection.

At present, the Applications Laboratory is making extensive use of ferrites and semiconductors in the development of broad lines of isolators, circulators and parametric amplifiers. The latter device has already demonstrated its worth in satellite-tracking radars, IGY research receivers, uhf television receivers and radio. In the study and design stage are new and advanced ferrimagnetic devices such as microwave switches, ferrimagnetic limiters and semiconductor switches.

Still another research frontier where striking preliminary results have been achieved is a low-voltage facsimile paper for the transmission of teletype and other information. Applications in the fields of combat surveillance, logistics control and other important military programs are foreseen.

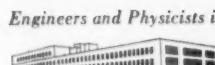
Military Electronics Division's expanding capability in solid state electronics is described in a new booklet entitled: "Solid State Frontiers at Motorola." Request your copy from Technical Data Service, Motorola, Inc., Military Electronics Division, 8201 East McDowell Road, Scottsdale, Arizona.



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THE ARMY'S MONTH

AN ARMY IS AS MODERN AS THE STRATEGIC CONCEPTS THAT CREATE IT

WHAT is a modern army?

It might be said that an army is modern if it is perfectly adapted to the national strategic objectives of the nation it serves. If the nation's objectives are based on strategic concepts that are realistically attuned to the conditions that exist in the world at the time all would be well. But if the national strategy was wrong the state of the army would be out of kilter with the world as it is and we would have to call such an army unmodern and also ripe for plucking.

The French Army was ripe for plucking in the 1930s and was plucked in 1940 because it was as modern, but no more so, than the national strategy which had created it. Had the post World War I French national strategy been realistic instead of being based on ignoble fear and a spirit of defeatism, the French Army of the 1930s would have reflected it. In terms of personalities it would have been an army that reflected DeGaulle rather than Gamelin.

This has some cogency today. For as DeGaulle in the 1930s was a voice crying in the arid wilderness of French defeatism, so today there are individuals in America crying against plush complacency. DeGaulle in the 1930s was crying for more than a modern armored force; tanks by themselves cannot make an army modern or a nation great, but had France heeded DeGaulle and turned to the creation of a modern army it would have been a signal that Frenchmen were facing reality, that French national objectives and French esprit were equal to all challenges.

A modern army is much more than

an army adequately armed with the latest and best weapons. A modern army is an accurate index of a high order of national determination. It is the army of a nation that puts security before budget-balancing; it is the mark of a nation that has swept aside the silken robes of complacency and has

taken a stand confident in its ability to meet all challenges successfully.

The big question facing Americans today is not whether we can afford a modern army. It is whether we have the fortitude to face the changed conditions that demand a national strategy that also require a modern army.

THE TROUBLES OF THE JOINT CHIEFS OF STAFF ARE NOT ALL OF ITS OWN MAKING

THE critics have again mounted the ramparts to shout their outrage at Pentagon strife. The Joint Chiefs are under attack for not settling their differences and agreeing on what should be done. The services are said to be selfish and parochial and individuals within the services who admit to a feeling of frustration are, it is hinted, selfish and unable to comprehend the big picture.

Much of this is nonsense. The services are indeed parochial (but don't carry this too far) but who would expect them to be otherwise; the rules they operate under force them to be, if they are to remain viable and strong. Furthermore the blessings of parochialism sometimes outweigh the faults.

The JCS should not be immune to criticism but to belabor it for not coming to sweet agreement on every issue is unrealistic and so too is the new tendency to indict it for failing to make decisions about matters that don't come to its attention. The JCS is a servant of the Secretary of De-

fense, charged by law to provide him with military advice. If he doesn't ask the right questions he is not going to get the military answers he needs as General Taylor has demonstrated in statements before Congress and elsewhere during recent months. But even if the Secretary of Defense did ask the right questions he would get unsatisfactory answers as long as he continues to insist on unanimous agreement by the Chiefs. In those vital areas where there are real differences of opinion a Secretary would be better served if he asked, in General Taylor's words, for a "rigorous analysis" of the pros and cons made so that the "Secretary of Defense can see where the right course of action lies."

It is difficult not to conclude that the JCS is being improperly used and at the cost of depriving the National Security Council and the President of military judgments on military matters. As things are it seems inescapable that a civilian Director of the Bureau of the Budget

and civilian Secretaries of State, Defense and Treasury have more influence on military decisions than professional military men.

"Washington experts find," Hanson W. Baldwin wrote recently in The New York Times, that "the Joint Chiefs of Staff are really being blamed for many of the failures of the National Security Council. A strategic concept such as that of

massive retaliation cannot possibly be labeled 'made in the Pentagon'; it involves too many extraneous national policy matters. The National Security Council, as used by President Eisenhower, in fact determines basic strategic concepts and military policy—or it compromises them. The Joint Chiefs are 'advisers,' but that only; their advice can be, and very often is, overruled."

WORTH OF JCS IS IMPAIRED BECAUSE COMPROMISES CAN'T REPLACE DECISIONS

BRIG. GEN. THOMAS R. PHILLIPS

From *The St. Louis Post-Dispatch*, 5 July 1959

A SHARP reduction in rivalry among the armed services was one of the President's major goals in proposing Defense Department reorganization last year. This has not been achieved.

If anything, controversy between the services has increased during the year since the Reorganization Act was passed. . . .

"Many of the basic military questions which confront the Congress and the country are apparently never discussed by the Joint Chiefs of Staff," the report by the Committee on Appropriations of the House declared.

The Joint Chiefs of Staff do not discuss such things as the Navy's need for a carrier, the size of the Army, the potentialities of the Army and Marine Corps combined in an operation nor the combined strategic deterrent power of the Air Force and the Navy.

They do not discuss them because the Navy does not want anyone but the Navy to determine its needs or because the Air Force considers itself the only judge of its requirement for air power.

The Army apparently is not blamable. Former Army Chief of Staff Gen. Maxwell D. Taylor of the Appropriations Committee: "I think that our [J.C.S.] weakness is in not determining standards of sufficiency—how much is enough for the atomic retaliatory force, for air defense, for limited warfare forces, for strategic air

lift and sea lift, for reserve-type forces

THE CHIEF OF STAFF REPORTS ON THE ARMY'S MAJOR PROBLEMS

The Major Problems. Although the Army has achieved significant success in some areas, there are important unresolved problems affecting the inter-

nal development of the Army and its role in national defense. They include:

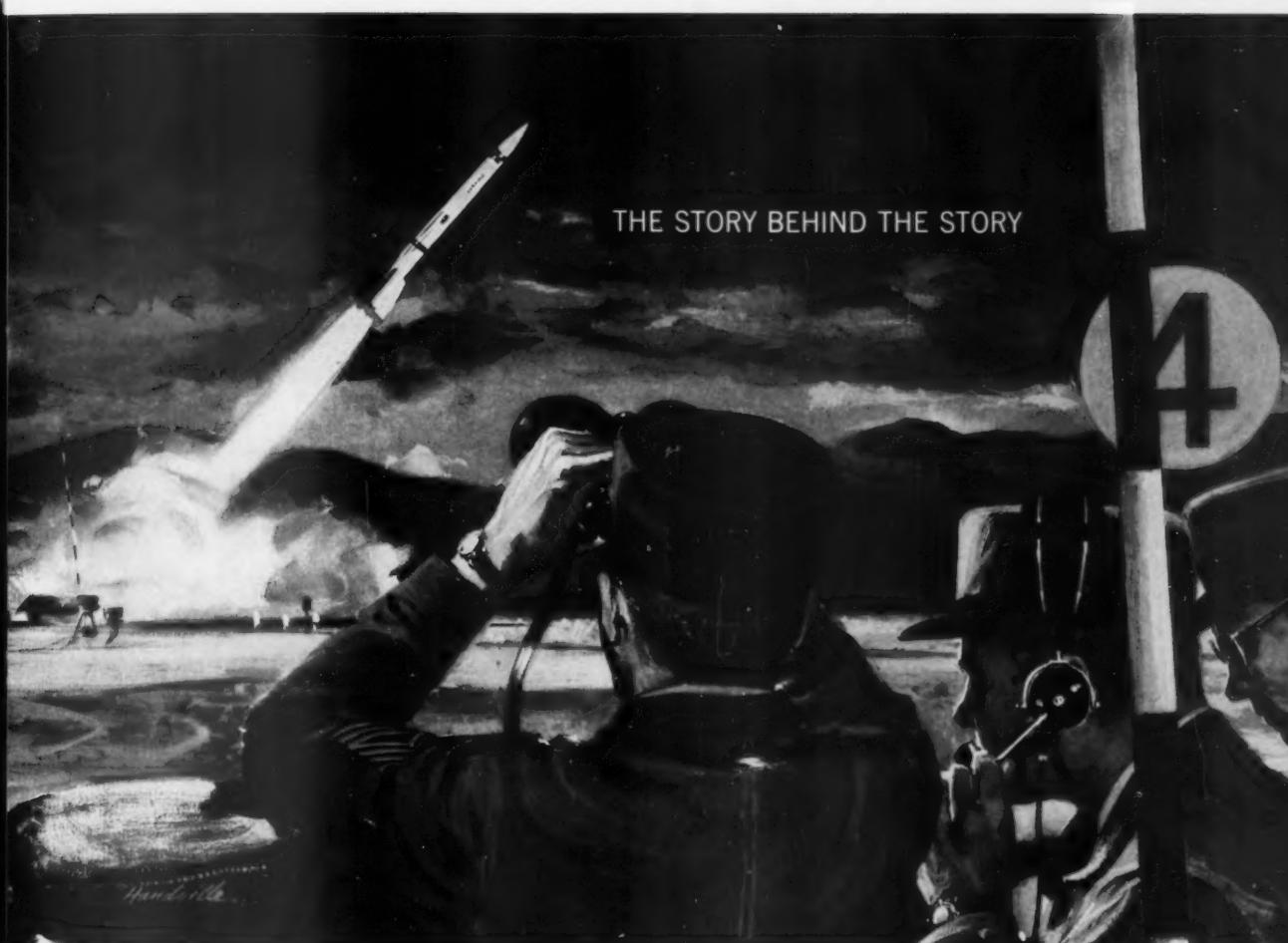
1. The achievement of a properly balanced national military strategy.
 2. The determination of yardsticks of sufficiency for all categories of forces required to support this balanced strategy.
 3. The development of a budget-making process which will assure that funds are allocated in consonance with the true needs of this strategy.
 4. Acceptance of the role of the Army in the execution of this strategy, together with the allocation of the necessary means to perform this role.
 5. A better understanding of the Army's tasks in air defense and the urgency of its Nike-Zeus program.
- Major Considerations.** The requirements for our future security derive from the growing aggressiveness of the Sino-Soviet empire in international relationships and its deliberate disregard for international hopes for peace. It appears likely that the Soviets will keep the world in a state of tension. Because of the tremendous leverage which the Communist bloc is capable of exerting by the application of mas-

WHOSE OX IS SHARED?

Mr. Witze, meet Mr. Loosbrock

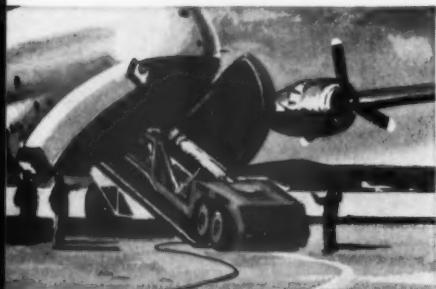
John F. Loosbrock, Editor, Air Force magazine, quoting an Air Force Association Statement of Policy: "We must have one defense plan. . . . Each [service] must place the realities of the national defense requirement above narrow service interest." (Page 6, July 1959, Air Force magazine.)

Claude Witze, Senior Editor, Air Force magazine: "The additional idea that the Army might win control of the lines connecting the SAGE system with the Bomarc missile and interceptor bases and that it could force USAF to share these lines with other branches of the armed forces clearly is not acceptable." (Page 19, same issue, same magazine.)

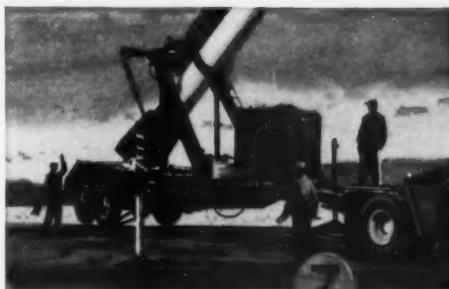


THE STORY BEHIND THE STORY

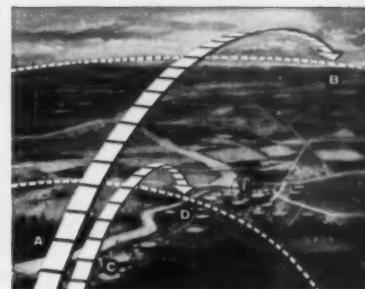
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For military operations, the powerful SERGEANT will furnish Army commanders with highly mobile, reliable firepower that will be ready in minutes to strike against enemy targets.

Sperry Utah Engineering Laboratory, Division of Sperry Rand Corporation, Salt Lake City, Utah, is responsible for production of the SERGEANT missile system.

SPERRY

sive military power, the U. S. must maintain armed forces in being capable of offsetting this power.

As the nature of this threat is dynamic so must the outlook of the Army remain dynamic. To contribute effectively to the national efforts to meet this threat, the Army must seek not merely to keep apace, but to anticipate its changing nature. With this objective in mind, the following broad courses of action by the Army are considered necessary if it is to make its needed contribution.

A Properly Balanced Military Strategy. First, through all proper channels available, the Army must continue to press for a change in the underlying premise of our national military strategy from the strategic concept of massive retaliation to one of flexible response, based on a wide range of integrated, balanced military strength.

Yardsticks of Sufficiency. A major element in achieving a properly balanced military strategy would be the determination by the Joint Chiefs of Staff of the kinds and quantities of operational forces necessary, based on agreed yardsticks of sufficiency. Such a determination and the resultant rational force structure would have many significant advantages. The determination of how much is enough in each category of force should increase our visible, ready deterrent strength without a marked increase in overall Defense expenditures, as a result of a more balanced allocation of fiscal resources in keeping with a strategy of flexible response. All services and functional forces would assume a form and size appropriate to their missions and tasks. Excesses would be eliminated and deficiencies filled in the aggregate force structure.

A Sound Budget-Making Process. To make effective such a revision of strategy and determination of forces, the Army must continue to press for a fundamental change in the present inflexible pattern of the Defense budget which annually allocates some 70 per cent of available resources to preparations for deterring or fighting general war. A rational Defense budget-making procedure, based on a horizontal analysis of the categories of functional operational forces, is considered to be an important first step toward a better use of defense assets.

Essentiality of Army Missions. Suc-

cess in battle is achieved by the proper combination of firepower, mobility, communications and personnel. History has shown the fate of armies of the past that failed to obtain the combination of these characteristics necessary to defeat the enemies they were called upon to face. This consideration relative to the threat of today and the future, lends emphasis to the need for a better acceptance of the essentiality of the missions of the Army in the execution of a balanced military strategy, and the allocation of the necessary means to discharge these missions. Such an acceptance would support the need for an orderly, financed equipment modernization program for the Army. This is vital for the twofold purpose of increased effectiveness of the active Army and high priority ready reserve units, as well as overcoming the growing obsolescence of the current Army equipment inventory.

Army modernization objectives should seek essential improvement in terms of the characteristics mentioned above, discussed as follows:

Production is required of the second generation of Army surface-to-surface missiles which have been developed to improve Army firepower. These missiles should provide better performance characteristics, reliability, lighter weight, and greater versatility. In addition to improved atomic components, if appropriate, they should be furnished with improved high explosive, fragmentation, and chemical warheads. Ground-gaining combat units will continue to require close-in direct support fires of greater efficiency and battlefield adaptability. From this stems the earlier stated requirement for the close-range sub-kiloton atomic weapons as well as new non-atomic close fire support means to supplant obsolescent types of conventional tube artillery.

At the point of contact with the enemy, the rifle, machine gun, and mortar remain the basic tools of close combat. The lighter, more efficient types which have been developed should be produced more expeditiously in order to replace the numerous World War I and II weapons now in the hands of troops. These improved weapons will not only increase the battlefield effectiveness of small units, but will pay added dividends in the simplification of small arms logistics in the forward combat areas.

In addition to the need for improved

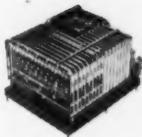
means of strategic mobility required from the other Services, continued improvement of the Army's tactical mobility on the modern battlefield remains essential to the rapid maneuver necessary to bring firepower and the decisive effect of close combat to bear at the critical point. Wheeled, tracked, and aerial vehicles—with greater range, economy of operation, and reduced maintenance—have been developed and are urgently needed in our troop units.

The desire for aerial vehicles does not mean that the Army contemplates duplication of any of the missions performed by the Air Force or the establishment of an air arm for the Army. Rather, these vehicles are the organic means which the Army should have to overcome obstacles to effective ground maneuver and reconnaissance, and they are a necessity when operating against numerically superior forces. From the standpoint of close ground combat, the protected mobility and firepower afforded by improved tanks and armored carriers becomes most significant with respect to maneuvering through the fireswept or nuclear contaminated areas of possible future battlefields. Production of a new family of armored vehicles having lighter weight, greater killing power, and reduced logistical demands is an essential requirement for the future.

Flexible and responsive communications constitute the nerve system of command. For the future, the Army must focus on greater versatility of communications systems at all levels; simplicity; decreased size, weight, and power requirements; and component standardization for communications equipment. Most of these items have been developed but their production must be speeded up to provide early replacement for the interim, obsolescent equipment with which our forces are now equipped.

Closely allied with Army objectives in the firepower field, and the increased tempo of operations attainable through improved mobility, is the imperative requirement for all-weather, 24-hour surveillance and target acquisition means. Without such means, our longer range modern weapons can be rendered relatively useless against enemy targets dispersed in width and in depth. As a result of intensive research and development effort, there are in sight many of the items required for such systems but, again, procurement

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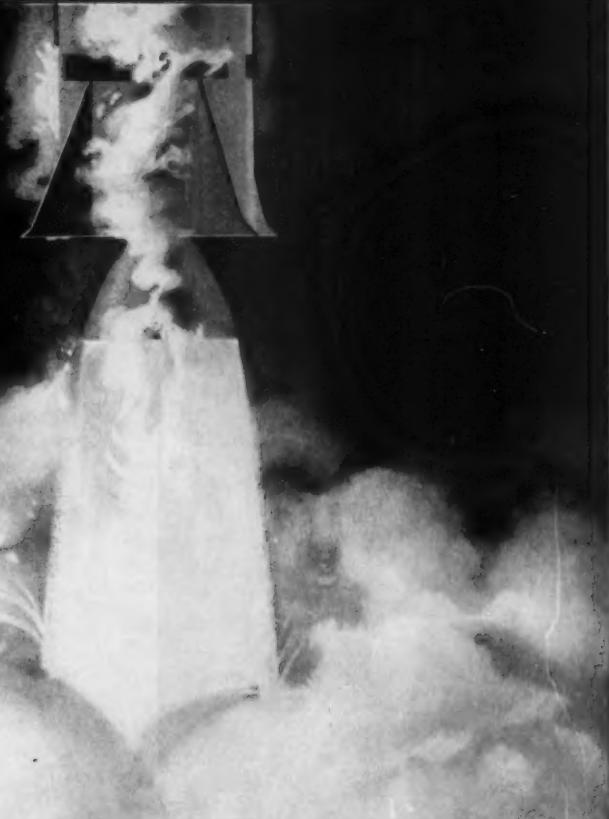
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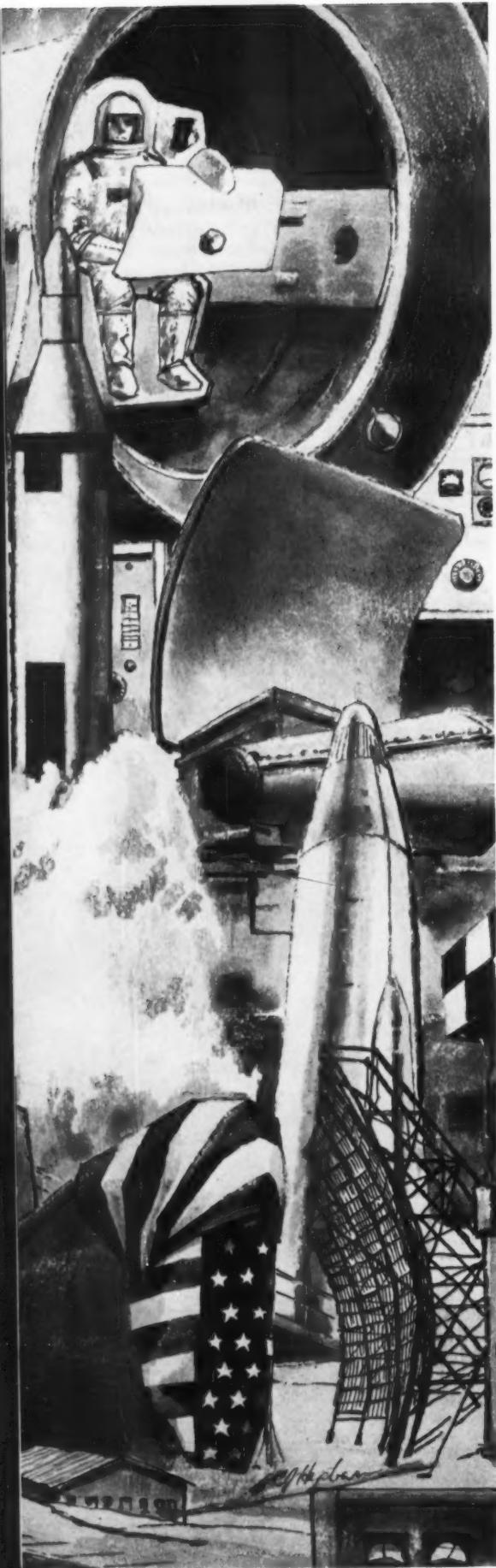
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- Systems-oriented program management
- Competent systems engineering
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ment to deliver the total system requirement on time, with the right quality, and at the specified price.

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lags behind the need and requires new emphasis.

The foregoing discussion of Army modernization objectives should not imply that the Army does not continue to regard its people as its most valuable asset. This recognition of the importance of the human factor must continue into the future when new and complicated weapons, employed in a strange and demanding battlefield environment, will impose greater demands on the soldier than ever before. Thus, the established trends toward improved quality in the Army's people must be continued and intensified.

The Army's Role in Air Defense.

There is a pressing need for achieving a better understanding and acceptance by the other Military Services, the public, and the higher levels of government, of the nature and importance of the Army's role and capabilities in the air defense field. These are based on the proven performance of operational Army surface-to-air missiles and their established capabilities against all foreseeable manned or unmanned air-breathing threats against the United States at all possible altitudes of attack. Moreover, in the light of the probable Soviet long-range ballistic missile capability of the near future, full support should be sought for the Nike-Zeus. As the Nike-Zeus is the only antiballistic missile weapons system under development, its early deployment is of vital significance if the United States is to maintain the effective defense essential to the deterrence of general war. Further loss of leadtime in the production of this system could result in consequences of grave import to the Nation.

CONCLUSION

ALTHOUGH this report has concerned itself only with the state of the Army, full recognition is given to the tri-Service character of our national defense. In the words of President Eisenhower, "Separate ground, sea, and air warfare is gone forever," and the Army supports this view without reservation. The national security requires military strength in being on the ground, on the sea, and in the air, capable of coping with the wide range of possible challenges with appropriate forces and weapons. The Army faces the future resolved to play with competence its essential part in this tri-Service effort.

General Officer Shifts

Maj. Gen. ALVIN L. GORBY to Valley Forge AH . . . Maj. Gen. RALPH A. PALLADINO to Reserve Forces Policy Board . . . Brig. Gen. FRED P. CAMPBELL to USAREUR . . . Brig. Gen. WILLIAM F. CASSIDY to OCENGRS . . . Brig. Gen. CHARLES B. DUFF to OCSA . . . Brig. Gen. WILLIAM B. KUNZIG to 1st Inf Div . . . Brig. Gen. STANLEY R. LARSEN to Eighth Army . . . Brig. Gen. ASHTON MANHART to USARPAC . . . Brig. Gen. CHARLES W. G. RICH to Commandant of Cadets, USMA . . . Brig. Gen. JAMES A. RICHARDSON to Eighth Army . . . Brig. Gen. JONATHAN O. SEAMAN to USARPAC . . . Brig. Gen. JAMES L. SNYDER to Brooke AH . . . Brig. Gen. TOM V. STAYTON to MAAG, Belgium-Luxembourg . . . Brig. Gen. HENRY R. SYDENHAM to Brooke AMC . . . Brig. Gen. JOHN L. THROCKMORTON to 101st Abn Div.

Retirements. Gen. MAXWELL D. TAYLOR . . . Maj. Gen. ALBERT PIERSON . . . Maj. Gen. LOUIS J. RUMAGGI . . . Brig. Gen. GEORGE W. COOLIDGE . . . Brig. Gen. WESLEY T. GUEST . . . Brig. Gen. JOHN L. PERSON . . . Brig. Gen. JOHN D. F. PHILLIPS . . . Brig. Gen. FRED W. SLADEN, JR. . . . Brig. Gen. ERIC H. F. SVENSSON . . . Brig. Gen. WILLIAM J. THOMPSON.

HOT SPARKS

Army's Mohawk Makes Debut

Grumman Aircraft's YAO-1 Mohawk, a prop-jet observation plane designed to operate from small, unimproved fields, made its formal debut July 7 in Calverton, N.Y. Powered by two Lycoming T-53L3 engines, the YAO-1 demonstrated a 55-knot stall speed and short take-off and landing capabilities that would do credit to the Army's present light-weight single engine airplanes. The YAO-1 is the Army's first prop-jet airplane. With a wing span of 42 feet and an over-all length of 41 feet, the Mohawk is capable of visual observation, photography, and all-weather target localization by means of "side-looking" radar and infrared "strip mapping." The Army had to get a special go-ahead from the Secretary of Defense to build it since it weighs in some 3,000 pounds over the 5,000-pound artificial limit imposed on the Army. Said Lt. Gen. Arthur G. Trudeau, the Army's Chief of Research and Development and a principal observer during the test flight: "It will be the Army's first surveillance aircraft and

it is expected to greatly increase the Army's capability for round-the-clock surveillance and target acquisition through electronic means." Gen. Trudeau who made a flight in it was the first passenger to fly in the plane.

Remote-Controlled Missile Targets

A \$1.5 million contract for the production of remote-controlled missile targets for the Army has been awarded to Beech Aircraft Corp. The low-cost, recoverable target vehicle, designated the KDB-1, is designed to simulate enemy threat aircraft at altitudes up to and exceeding 40,000 feet. The KDB-1 can be either ground- or air-launched and is powered by a 120 hp McCulloch turbo-supercharged engine. The pilotless craft, the first of which will be delivered to the Army in October, weighs less than 600 pounds, has a wingspan of 12½ feet, and an endurance of more than one hour.

5-Ton Aluminum Amphibian

Tests now are being conducted at Fort Custer, Mich., on the first model of the LARC-5, a new five-ton capacity all-aluminum amphibian, designed to replace the two-and-a-half ton DUKW's of World War II vintage. Built by Borg-Warner Corp., the new unit is powered by a 270-hp engine and is capable of water speed of 10 mph and highway speed of up to 35 mph. The LARC-5 is 35 feet long and 9 feet wide and is one of seven now being constructed. A 15-ton "big brother" version of the LARC-5 is scheduled for delivery to the Army in August.

Ground-launching Systems

Two ground-launching systems—rail and "zero length"—are under development by Ryan Aeronautical Co., San Diego, to add versatility to its Firebee jet targets, which presently are air-launched by "mother planes." An 80-foot rail launcher will be used initially to prepare the Firebees for their jet assist take-offs. Once aloft, the Firebee's jet engine takes over. The "zero" launcher, to be developed later, will consist of a mobile system, and will enable the Army to send up targets from various locations. The project is being conducted for the Army Rocket and Guided Missile Agency, Redstone, Ala.

Successful Autorotation

Bell Helicopter Corp's XV-3 convertiplane, developed for the Army, has completed a successful autorotation landing. Autorotation was made at about 70 mph, followed by a flare to 35-40 mph and a roll-on landing. Bell reports that the XV-3 has showed its value in the event of engine failure by reconverting from both high and low RPM airplane flight to autorotating helicopter for landing.

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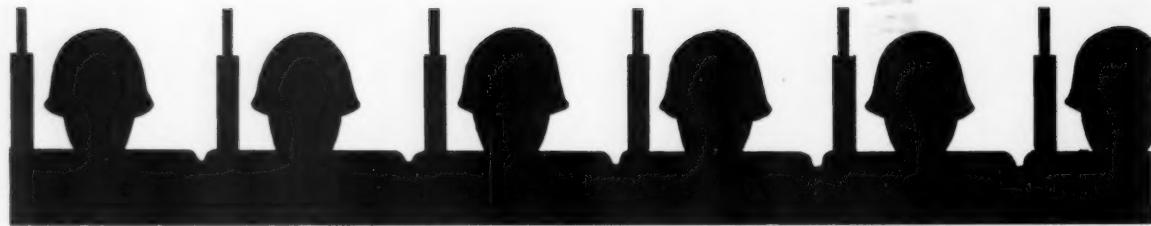
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THE PLACE OF MAN IN A MODERN ARMY

Brigadier General S. L. A. MARSHALL

BY a coincidence less happy than depressing, AUSA convenes this year around the fourteenth anniversary of the dropping of the first atomic bomb. The meeting was not deliberately so timed. But an intuitive understanding of the historical process seems to have been at work when it was decided that at this meeting the accent should be placed on fighting man and his indispensable role in the eternal scheme of things.

If the subject sounds antiquarian, so be it. Usually it takes the passage of a generation before humanity comes to a balanced view of the impact of revolutionary scientific change upon its environment. On approaching the halfway mark, it is well to pause and consider whether judgment is guiding more on history than hysteria.

Emotionalism has had a long day with a surfeit of bubble talk. At first the shock reaction was beyond cushioning. When the Enola Gay struck 14 years ago, the survivors next ground zero, if they thought beyond their hurts, must have brooded that they had eyewitnessed the eclipse of the human spirit—its power to endure, survive and determine the order of earthly existence.

They were not alone. Like a temblor girdling the earth, the morbid notion swept through warriors in theaters half the globe removed from Hiroshima that in one awful second of time, all things had changed for their profession, ancient values had been flushed

down the drain and the way of the fighter was made sterile by the weight of the bomb.

The illusion dies slowly. The mushroom cloud rises ever higher and fighting man, screened against it, appears shrinking to insignificance.

BUT 14 years later, General Maxwell D. Taylor speaks on the eve of his retirement as Army Chief of Staff: "I would I had the gift of eloquence. I would use it now in an attempt to make men understand that the more destructive weapons systems become, the greater grows the need for larger numbers of trained fighting men, with higher courage and keener intelligence than ever before."

If that proposition is an irreducible truth, suffice to say that it is still not granted by the nation. Today's best question is whether we of the Army fully understand and believe what he said.

A drunk kept hitting the bottle so hard and often that his friends, at last tiring of it, carried him out of one spree and laid him in a casket at the village funeral parlor. When two mornings later he opened his eyes, he said: "If I'm alive, why do I have a lily in my hand? If I'm dead, why do I have to go to the john?"

We know his confusions. If armies are on their way out, and are no longer decisive of the issues which shape the fortunes of mankind, why do we feel such an overpowering urge to get going, organize our case more





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***History's main lesson
is that the more
directly weapons menace
the heart of society,
the higher must become
the percentage of
people ready-trained to
bear arms***

perfectly and do duty with greater ardor than before? Certainly it is not alone from a feeling of frustration. Men of discernment do not retain enthusiasm amid a failing institution.

We know that when armies are finished, their authority passed into total eclipse, there will be no songs to sing for other guardians of man's peace, for there will be no human ear left to hear. But our difficulty lies in this: that in an era when science is supposed to have changed all of the proportions of human struggle, we must continue saying that, fundamentally, all things are the same and man's final hope lies still in the trained unity which made Rome last while her legions stayed sound.

As with the great ideals which have contributed to human advance, so it has ever been with the strong right arm and the will to defend. They are the shield which makes the advance possible. Weapons may change again, as they have ever changed in the past. But the greater becomes their potential in heretofore undreamed orders of magnitude, the more imperative is the need for a greater rallying and more perfect organization of our human and moral forces.

IT'S an old case the Army makes: there is no new case. Should we discount the validity of that case, simply out of a desire for greater head space, we will have sinned unforgiveably. But if we truly believe that man, defiant, trained and ready, today counts more than ever before, we must also believe something else.

In this age when automation has taken over the brain cells of some who profess to see the final answers to military problems which baffle the keenest professionals, there is a new kind of sound barrier to be crashed. It is the sound barrier of Babel, the Stentorian clamor of confused voices.

Listen to them: "We have found the better way. We can buy it wholesale. We will out-match strength with greater strength counted in machines. Don't worry about the size of the field army. It no longer counts. This is a new age of danger. We will master it with gadgets." So loudly do they cry that it becomes impossible to hear the voices of reason, experience and time-proved method.

Flippantly to dismiss the peril coming of this Babel would be inexcusable. Rather, what is important is that we stand fast and do not join the tumult. The phenomenon is not new. Just as every new art becomes a sewer draining the worst from the arts which have preceded it, every new weapons complex becomes a spillway partly emptying the reservoir of distilled military wisdom. The truth holds that no new weapon, or system of weapons, ever solves a military problem. It but sets up a new series of problems to be solved by more perfect and expansive training. Every cut at the Army, every downscaling of forces here or abroad, every excessive claim by any other service, every prophecy that the pendulum of power has passed into other keeping, every whisper that what is called an atomic stalemate has made world war impossible, every hint that the Berlin dilemma proves the futility of conventional formations, should remind us that cases are not won simply by a passive belief in their virtue.

IT is our right and duty to protest what we know is wrong when we have total conviction based upon reason and fullness of information. The exercise of that right is not a question of morality basically but of whether one wishes to live as a whole person.

The temptation is to remain silent in the face of almost overwhelming absurdity. The irrational becomes rationalized, dilemmas are resolved by turning the crank of Univac and almost daily we read estimates of what life and power will be like in that Brave New World which, dominated by the ICBM, will have almost no need of disciplined and armed human mass.

Well, let's look. It is not usually considered wise to mount your horse and ride in any direction before knowing where you are. We have not yet faced the main military problems of this day, August 1959. Should great war come suddenly, we would be at a loss to know how to fight it. The existing riddles are tremendous. But if we fail to come to grips with them, is there faith for believing that we are already competent to grapple with the greater complexities of the far more dangerous age beyond?

This may read like a sweeping over-simplification. But isn't it agreed that we have not yet devised effective defense against nuclear weapons delivered by

the carriers already available? Is it true that nothing short of the soundest possible defense could modify the mutually annihilatory character of all-out nuclear war? Can any defense be viable if there is lacking the stuff for disciplined reorganization amid disaster? When such questions are not faced today, worry about the more complex posture needed for survival in the ICBM age is premature.

WHAT bothers most of us is less that we have not prepared a national plan proportionate to the danger, but that we whistle as if we had one. Reason tells us that in a world loaded and pointed for the playing of Russian roulette, strengthened nerve and broadened discipline are the warp-and-woof of staying power. History says that these things come of military training. But on the other hand, we see few signs that reason may be expected to prevail. It has happened before that whole peoples have misunderstood the military nature of their times and gone down; it could happen again.

What counts above all is that we of the Army continue to hold ourselves, and be held, responsible for seeing that Americans remain, in the fullest sense, an armed people until the oppressive cloud overhead is finally relieved. It is shocking that a society of free men, such as ours, having perfected area weapons, can ever for a moment entertain the idea that these terrible machines somehow release man from part of his centuries-old burden.

History refutes that belief absolutely. Its main lesson is that the more directly weapons menace the heart of society and the substance of government itself, the higher must become the percentage of people ready-trained to bear arms. The experience of the past fifty years and two world wars but confirms this truth in red lettering. And it applies more directly to armies—their size and capability—than to other services.

Only a romantic thinks of an army fundamentally as a body of trained men which goes forth, deploys, gives battle and thereby wins decision. Decision is in us; it is corporate in the state through every day of its existence.

Read the words of Jean Dutourd: "An army is a people in good order, and nothing is more soothing than good order; nothing rests the mind so much. War being a state of extreme disorder, it must be met with the most rigorous kind of order." What is he saying?

The Army, by its being, is the gyroscope of national stability, governmental control and social progress. Whatever imperils these felicitous conditions, whether through sudden rupture or institutional deterioration, makes more army necessary. There is no escape from this law; there may only be a fatal ignoring of its inviolability. As for what problems of field-keeping await armies on the day of atomic battle or the night of ICBM eclipse, it is a subject for wizards, major prophets and *ad hoc* committees.

None of us sees very far. But this at least we should

know: either armies will become numerically greater in man count than in times past or their task of defense—the holding together of a people—will be defaulted, come great war. It may well be that the ultimate derivative of the weapon power man has fashioned is the totally militarized state, though oddly, no architect of the New Age has dared mention the possibility.

IN essence an army is the final expression of the determination of a people to stay the course of history. It is created primarily to make government possible, and that basic commitment is its unique, decisive, non-transferable mission. Sovereignty is born with it, and dies when it perishes. It is not a weapon merely, but the embodiment of a collective political will, and for this there can be no nuts-and-bolts substitute, or any other.

National power has no other linchpin. Deterring force, as a thing poised only for retaliatory destructiveness, must lead eventually to the interring of all constructive political influence. In crises short of total war, it has little bargaining value and no stiffening effect.

The real stuff of national solvency and a buoyant diplomacy, in the atomic era as formerly, is a prepared people. Nothing weighs in the power scale so much as how they look and whether or not they are trained, coiled and ready to spring in decisive numbers.

That means armies. *The bedrock of national firmness is that kind of military training given the basic soldier and progressively broadened throughout the nation. The great paradox of this superweapons age is that even while its strident voices proclaim the obsolescence of the self-starting rifleman, its greatest brains have devised no substitute for him as the soul and spiritual symbol of manageable collective resistance. You don't get butter without churning cream: you can't have military élan and mobility in any part without first widely winnowing the fields of trained courage. Science will never find a way to keep today's shock forces primed and ready to outdo Superman, if they come from an ill-trained, badly-disciplined society. It would be a greater miracle than splitting the atom. Unless man functions superbly under any and all conditions of war as it is now envisaged, all our highly destructive means and all our complex new methods will be useless.*

ALL of this is elementary. Reiterating it to soldiers is like preaching on church-going to the faithful. There are but two arguments for so doing. The prime one is that the peoples of the West have thus far so grossly disregarded the main propositions as to suggest that their governments have discounted the worth of armies because their own views of the ultimate mission are more romantic than realistic. Second, if we do not truly believe in the fundamentals of our religion, there can be no hope that others will in time be caught by our faith or that we will continue to speak according to its basic commandments.

The shape loosed 14 years ago cannot be put back



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***It is not goodwill
which we covet
so much as
understanding by
the people of
how critically thin
is their line of
resistance and what
the Army must do to
make it impregnable***

in the bottle or made less sky-filling. But we live here on earth, this is where we move and there can be no other home base. There is one thing we can and must do, we dirt-dwellers who know that ground must be won and held before salvation, we can speak up for man, what was won by his disciplined spirit in the past, and that greater dedication in him while alone may insure the future. Soldiers should not be afraid to sound old-fashioned. Love of country is but a lasting fidelity to things past and dead and 'to the character these things have created which have become the essence of a nation.

The urge to join the big parade to the altar of machine power is almost overpowering. All others yield to it and the Army would be lost if it did not at least genuflect. Without a face-lifting, the Army could muster no support for its programs. It is not just in the world of Christian Dior that what is fashionable provides entree to the purse. We live under the sign of the ephemeral. When an army looks outdated, its support falls away. There are other hungry services and some of their spokesmen might be rash enough to consider doing the job alone.

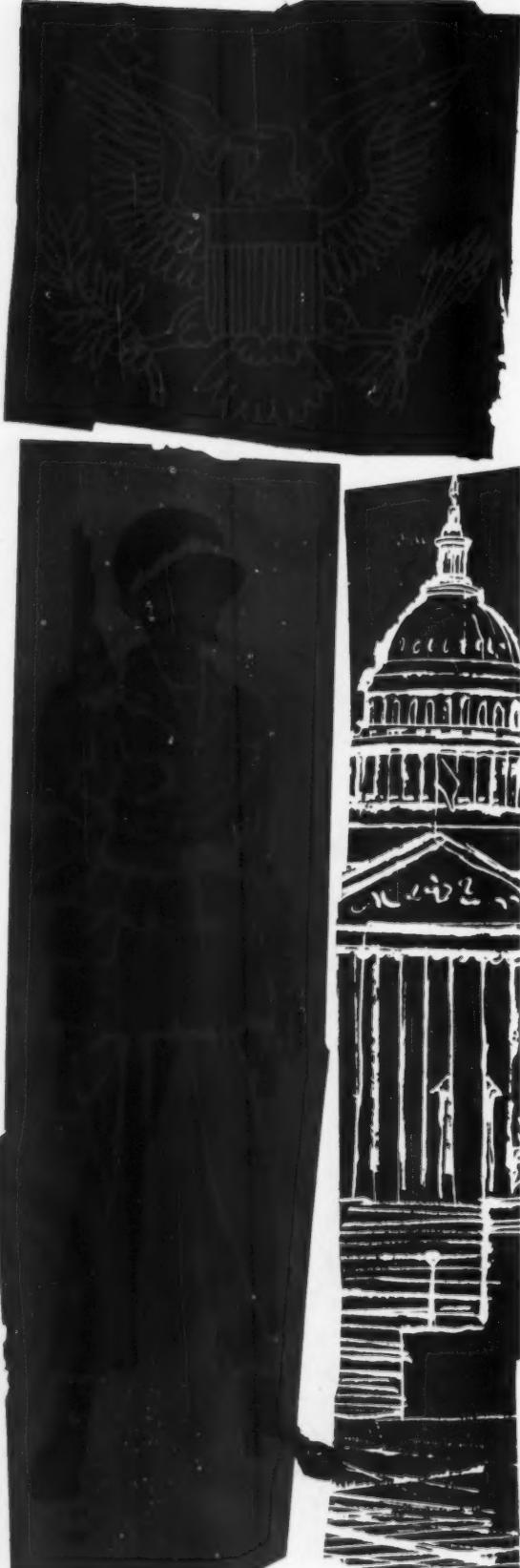
BUT reform is a runaway word, sometimes making greater problems than it solves. The Sphinx said: "Don't expect too much," when asked for the distilled wisdom of the ages. In his final talk to Army War College, General Taylor advised his comrades-in-arms to take a second and closer scrutiny before concluding that limited nuclear war is the wave of the future. Statesmen and governments, he noted, are coming to view it with such repugnance and mistrust that it may be made politically taboo before it can be militarily tried. The feasible is not always doable, the logical not always possible.

General Taylor's utterance of a reasonable doubt cannot be brushed off out of deference to a popular theory. We move and we fight either within the frame or under the shadow of an alliance of free nations, all anxiety-ridden, all rabbit-eared to the rattle of atomic hardware, all feeling that they have a moral lien on our more pivotal military decisions. The choice of weapons may not be ours to make. But we have full freedom of decision in what counts more: what size the Army and how high its training standard.

There is no other cushion for safety. Without a broadened base of fighting manpower, we are as little ready for a nibbling war as for Armageddon. We are under the compulsion to establish a radically new and more powerful weapons system, amid gnawing doubt that it will apply in any situation save a last catastrophe. All armament produced and carried which is not certain of use is dead weight on a field army. Nothing may keep it from being an insuperable load on mobility but a higher count of strong backs and willing hearts. The nation is entitled to some better prospect than the alternatives of a third world war or inaction.

TO DAY, an army made less and less capable of reacting swiftly and smoothly to limited, conventional threats is withdrawing from contention. A nation which lacks sufficient reserves, because it has mistakenly decided that a large, trained manpower is dispensable, is a ripe target for graduated aggression. Missile squadrons do not mean hitting power. A jet-powered transport does not supply mobility. We need harder training, not in school techniques but in field rigor. We need a broadened reserve more than a streamlined standing force. We need to hold to a few old ideas rather than frantically to clutch for new ones.

It is not goodwill which we covet for our service so much as understanding by the American people of how critically thin is their line of resistance and what the Army must do to make it impregnable. To that end we need take continuing counsel among ourselves that we may come more perfectly to know the situation. We may provide clearer light only by making it first shine more brightly from within, remembering the counsel of a great Civil War soldier: "The place for a man is in the fight. But to make up your mind at your peril upon a living question, for purposes of action, calls upon your whole nature."



U. S. STRATEGY

HANSON W. BALDWIN

UNDER the stimulus of the technological revolution in warfare and our need for foreign markets and raw materials the United States has rejected the isolationist doctrines of the past, and has formed alliances with other states of the Free World in order to check Communist expansion. We have worked for some sort of world order like the United Nations, but pragmatically we have realized the impossibility of achieving any such parliament of man (at least in our lifetimes). For our own political and military security we have depended primarily upon our own power, allied with that of friends. We have also rejected the concept of world order by conquest, or deliberate surprise attack upon Soviet Russia to cut her down to size. Essentially, we have been trying to form an alliance strong enough to contain Russia within Eurasia. In other areas we have been trying to fill in with military aid, political and psychological help and encouragement and economic aid—the vacuums of power left by World War II and the subsequent decline of British, French and other empires. We have not always insisted that these vacuums, when restored to some strength, should be allied to us; we have maintained friendly and helpful relations, for instance, with nations like India and Burma which are neutralist but non-Communist.

We have utilized our superior nuclear power, the great politico-industrial prestige of the United States, the power of the dollar, and occasionally overt force—by proxy as in Quemoy or directly as in Korea—to help check Communist expansionism. We have also employed covert means—the agent and the subversive movement, as in Guatemala and Syria (the one successful, the other a failure).

The Prospects of the Tomorrows

Sometimes we have even played both ends against the middle as in Indonesia, and we have tried all the ancient devices of diplomacy—a show of force, negotiations, stiff notes and strong warnings—all these to “contain” the enemy’s expansionism.

In contrast, Soviet policies have represented a combination of Russian power and Communist tactics. Moscow has used internal coups, as in Czechoslovakia; limited war by proxy, as in Korea; political infiltration and the exploitation of nationalist movements and local grievances; guerrilla war, as in Greece; espionage and subversion and psychological warfare on a grand scale; economic aid based on long-term low-interest loans, barter, outright grants and other flexible measures; unconventional diplomacy (which Prime Minister Macmillan of Great Britain found recently in Moscow “quite extraordinary”) based on bluff and bluster and power; threat and virtual ultimatum (as in the case of Iran and Berlin); and the obvious aggrandizement of her military, scientific and industrial power with the prestige factors that thereby accrue, as in the case of Sputnik and the moon rocket.

What does recent history teach us?

History shows that often many of these methods are combined to achieve an end; that Soviet policies are flexible and that there is no deadline for conquest. Soviet expansionism flows like water seeking its own level;

Hanson W. Baldwin, Military Editor of *The New York Times*, has written several books on national defense and many articles for this magazine. In 1942 Mr. Baldwin won the Pulitzer Prize for his war reporting from the Southwest Pacific. He is in demand as a lecturer at the National and service war colleges and other service schools.

if it meets an obstruction, it flows around it or undermines it.

In terms of actual violence, of incidents where the ultimate arbiter of force has been invoked, the past fourteen years have been illuminating.

Since World War II there have been 24 incidents of violence, many of them Communist-inspired. It is quite clear that not all of these limited wars were straightforward tests of Communism versus anti-Communism. But at least nine of the 24 involved Communist participation in one form or another from outright overt participation to covert action; and in one other, the primitive and horrible Mau-Mau massacres in Kenya, some of the key leaders were trained in Moscow.

A major factor in these wars, it is to be noted, is comparative costs. Generally the anti-Communists, the established governments (the “haves”) have expended far more in dollars; the Communists, the rebels (the “have-nots”) far more in lives. Still another point of interest is the size and duration of some of these wars. Established governments have found it difficult—the French in Algeria, the British in Cyprus—to counter guerrilla or terrorist operations, encouraged and often incited by outside propaganda and aid.

Finally—and most important—these 24 conflicts which have cost millions in casualties and billions in dollars during the past 14 years have taken place under the shadow of the atomic bomb but always without its use. Our monopoly of nuclear arms did not deter—or stop—the Communists in Indochina, Korea, or China; it did not even insure clear-cut victories for us in those conflicts. And since Russia and Britain became nuclear powers there has been no decrease in the incidence of the use of limited military force.

So much for past history and the guide lines it offers to the troubled future.

What are the outstanding capabilities of the two power blocs? What are our comparative advantages and disadvantages *vis-à-vis* the Communist bloc?

1959 balance sheet

I think any balance sheet would note, first, that the Red bloc holds—in an over-all general sense—the strategic initiative, an advantage inherent to its expansionist philosophy. To a certain extent, if we are to contain, to deny, to hold what we have, we react to Red thrusts. (I fully agree with the reader's anticipated objection and believe that in the politico-military sphere we could, more skillfully than we have often done, launch "spoiling" offensives, or counteroffensives.)

Russia has the advantage of a tight centralized control. Unlike our country and the rest of the West, public opinion and the notorious "no-men" of government offer few checks on implementations of the decisions made at the top.

Often it has been said that "we can take care of our enemies, but God save us from our friends"—a somewhat snide criticism of alliances. I do not hold, however—least of all since the rise of Red China—that the satellite status of most of Russia's allies adds to her strength. There is disaffection in the satellites, and between Moscow and Peiping there must be negotiated agreement, not command. In the Western alliance Washington is not able to propose and dispose. It is an alliance of free nations: slow to act, perhaps, tough in bargaining, quick in resentment, and difficult to unite in full agreement. But I think it can be agreed that voluntary agreements, voluntary alliances—particularly when forged to meet a common danger—are fundamentally stronger than a façade of empire dominated by force. As Dean Inge once wrote, "A man may build himself a throne of bayonets but he cannot sit on it." The throne of Khrushchev, head of the Russian satellite empire, will never be comfortable so long as it is propped up by bayonets.

Assets and liabilities of each side

A continuing asset of the West, even though it could be a wasting one, is our over-all industrial superiority to the Soviet Union. I shall not labor this point, for we have been deluged with statistics. Despite the post-war Russian rate of industrial and economic expansion—a rate considerably higher than our own—we still are the greatest industrial power in the world. Whether we shall remain so will, in my opinion, depend more upon what we do than upon what the Russians do. But they will not overtake us in the near future.

The industrial and economic strength of our allies, added to our own, far outweighs the total figure of the Soviet empire, even though Red China has made—at least judging by its own statistics—amazing strides in the past two years.

There is a by-product of our industrial advantage and our high standards of living which, however, may result in a disadvantage, particularly if Russia intensifies, as

she is likely to do, her dumping activities and her competition for world markets. We are pricing ourselves out of those markets. Unless some reforms are made the Red bloc will have an advantage in economic warfare.

In terms of geography the free world occupies the exterior position around the rim of Eurasia; Russia and her empire the interior position. This fact is of relatively little importance in missile and air warfare, and the traditional advantages of the interior position are, in any case, somewhat nullified in the Soviet heartland because of two factors. One is a relative inadequacy of Soviet transportation—roads and railroads particularly. The other is the fact that the expansionist trends of the Soviet empire are not limited to Eurasia. Africa, for instance, is a seething continent. To operate there and in South America, the Soviet Union must sacrifice the advantage of her interior position.

Also, the United States and the West have a key geographical asset: the advantage of bases around the periphery of Eurasia, more or less encircling the "heartland." Don't sell these overseas bases short. They are far closer to vital strategic targets in Russia than any Soviet bases are to corresponding targets in the United States. While they are thus more vulnerable to Soviet air-missile attack, they are also more dangerous to Soviet power, and they force a dispersion of Soviet offensive effort. Do not sell them short.

I think a point that can be defended is that the United States—and the West—so long as we retain control of sea communications (which, of course, also means the air routes above the sea) can move more swiftly and economically around the periphery of Eurasia than the enemy can move from the center of his realm to its circumference. If you doubt this, you need only look at the gigantic efforts made each summer by the Russians to exploit the Arctic Sea route (blocked by ice last summer, some Soviet subs cruised around the Horn). You need only note that the Russians find it on the whole cheaper and easier to supply their maritime provinces in Siberia by sea through Suez than over the Trans-Siberian railway.

For the Western coalition, the increasing importance to the Russians of sea communications and of coastal and Arctic shipping is particularly gratifying, for the vastly superior maritime strength of the West is one of our major military assets. In fact, U. S. influence and U. S. power in Asia are exercised primarily by our sea-air power (today this is a hyphenated term) based on the string of islands extending from the Aleutians to the Philippines. Our great advantage in seapower is challenged, it is true, by a vast Soviet submarine fleet which has both nuclear war and conventional war capabilities. Without laboring the point, it seems to me, however, that an unlimited submarine war against commerce, even if no nuclear weapons were used against surface shipping, would almost certainly provoke nuclear retaliation. Nevertheless, we cannot dismiss the potential threat to our vital seaborne lines of communication.

It is only those lines of communication which give the Western coalition, with its exterior position, the advantage over the "heartland's" interior position. Nor can we ignore the growing threat of small-scale submarine operations in possible limited wars. Egypt, for instance, now has nine Soviet submarines; Red China, 22.

In sum, our superior seapower is a tremendous advantage—vital in limited wars and in the cold war. And given the development of missile-firing submarines, quite probably vital in unlimited war, or at least in its deterrence.

We have also, I believe, an over-all advantage in piloted aircraft. The Russians have a considerably greater number of fighter interceptors and of ground support types. We have far more naval aircraft and more long-range bombers. (The Russians have only 150 heavies.) In over-all quality—experience factor, training of personnel, electronics, gunsights, missiles, air refueling, effectiveness of aircraft as combat machines—the United States is ahead save perhaps in fighter-bombers, light bombers, ground support techniques, and contour flying.

Ground forces and nuclear weapons

Land power gives the Russians their greatest advantage. I don't need to quote statistics; you know them: roughly 175 divisions or cadres of divisions in their peacetime armies and 300 mobilizable in 30 days, to the United States' 14 divisions. This advantage is of considerable importance if you concede that in time the Soviets will also have small tactical nuclear weapons, because if you examine the problems I do not think you can come to the clear-cut conclusion that nuclear weapons necessarily strengthen the defense. Other things being equal, I think a good big atomic army will always lick a good little atomic army. This Soviet advantage on land is increased when we consider the other members of the Communist bloc. Red China is the world's second largest land power and the Eastern European satellites add some 60 to 80 divisions to the Russian total.

On the other hand, our advantage in sea and air power is increased by the strength of our allies. The comparison really is what Churchill once described as the whale versus the elephant—the sea beast versus the land beast.

Another important element of military power is nuclear weapons. The number of our tests compared with those Russia has held indicates our quantitative advantage in this field. The U. S. has conducted some 150 to 160 tests of all types, Russia 60 to 70, Britain 21. The U. S. has a greater variety and quantity of nuclear weapons but there is still a weakness in the smaller types. We need considerably more fractional kiloton weapons, particularly because we have been somewhat bemused by the term "tactical nuclear weapons." Consider Honest John. Honest John releases more than twice as much power as the bombs that destroyed Hiro-

shima and Nagasaki. This "tactical" weapon is scarcely a small weapon. When we get to a ten-ton-yield weapon which can be carried by a doughboy, then we shall have small-scale, discriminating nuclear weapons.

We have therefore some weaknesses in this area. Fortunately, I don't think the Russians are yet ahead of us.

The nuclear missile race

In the missile field Russia has some advantages, but we have some too. In some types they are clearly ahead of us. Soviet 700- to 800-mile missiles are operational and with their forces, and have been for some time. These missiles number in the hundreds. They will reach most of our bases, excluding some in Spain and Morocco. The Russians probably have in numbers more short-range tactical missiles, but I doubt if their short-range tactical missiles are as good as our own.

The ICBM race, I think, is nip and tuck. I doubt that they will have this year any more actual operational missiles—take or leave a few—than we will have. The latest estimates (to mid-June) still insist that only 20 Soviet missiles have been fired beyond the 3,000-mile range, only one to 5,000 miles. There are absolutely no indications yet of any launching sites in Soviet Russia, in China, or in Eastern European satellites.

The U. S. advantages in the missile race are that we have more sophistication, better miniaturization and instrumentation, and better air-to-air and ground-to-air missiles and probably a larger "family" under development.

The coming stalemate of terror

So much for the comparative strengths of the opposing powers. What this comparison means, translated into cold, hard terms, is that the U. S. today maintains a superior nuclear delivery capability (even given attempted Soviet surprise attack) and that we could devastate and destroy the Soviet Union, though not without suffering major losses ourselves. Tomorrow, as the missile age progresses, both sides will be able to devastate each other. As mobile weapons systems and dispersed and hardened Minute Man complexes are developed and the invulnerability of the retaliatory or deterrent force is assured, even against surprise attack, a real nuclear stalemate or strategy of terror will result.

Let us recall past history. This will not mean—it does not mean this today when the nuclear advantage is ours—that Communism is contained. The superior strengths of the Communist ground forces are an important potential advantage in limited war around the periphery of Eurasia. I do not subscribe to the theory that the use of tactical nuclear weapons necessarily benefits the defense. Nor will the shadow of mutual annihilation prevent war by proxy, guerrilla war, economic war, political infiltration, psychological warfare, the war of subversion and stealth and secrecy.

So, after all this, where do we stand? What can we do?

Let's see if we can summarize and indicate tentative answers. Implicit in these answers, it seems to me, is a generalized policy.

First, the world does move. The global situation, national objectives, change with time. The only constant in the life of man is change.

Necessity for alliances

In the age of rockets, space travel, jet aircraft and electronics, an isolationist policy is militarily, economically, and politically disastrous. Some experts have suggested that with the advent of the ICBM and the anti-ICBM a Fortress America concept might not only be practicable, but desirable. It takes no military imagination to see that if our deterrent bases are concentrated within the U. S. the enemy's military problems become infinitely simpler. Bases on home soil draw the lightning of nuclear attack; abandonment of bases overseas implies an easy highroad for Communist conquest of Eurasia and Africa. It takes no political imagination to visualize the consequences of a Fortress America concept; the erosion of the Free World, outside the continental limits, would be accelerated. It takes no economic imagination, either, to understand that isolationism would, in time, reduce the power of the United States, cut back its foreign markets, and limit its overseas sources of raw materials.

If you accept these propositions, you must then accept the necessity of alliances, with all their headaches. If the Free World is to remain free, it must combine—drawn together by common national interests.

Let us not make the mistake of insisting that nations join us which do not share an identity of interest with us. We can never expect many of the Arab states of the Middle East, for instance, to be other than neutral. So long as they are legitimately neutral, so long as they are not dominated by the Communists, so long as the West has access to the oil of the area, our needs are satisfied. The neutralist states, the third force, the grey area, is becoming a factor of importance. In a sense this growth of a neutralist area is a tribute to our efforts since World War II. We have been trying to fill the vacuums of power left by that war. Shortly after the war those vacuums were so pronounced that small nations did not have the confidence or the power to afford the luxury of neutralism. We have helped many of them to self-confidence, to greater strength. In one sense this has been a direct result of our balance-of-power policy, our attempt to fill in vacuums which, unfilled, tend to produce political chaos. Don't misunderstand me; the task is by no means done. Africa, for instance, above all continents today, is fluid, viscous, full of vacuums.

Do we get our money's worth—not only militarily but politically—in a program of arms aid, not only to our allies, but to some of the neutralist states? This question is not easily answered. The original concept of arms aid—internal security—has changed greatly. In many cases arms aid has become an internal prestige factor bolstering regimes in power. The factor of external

prestige is also important. Many small nations cannot be expected to build military forces capable of meeting external aggression if the aggressors are Red China or Russia. A new look at the problem is needed. I think we try to fashion too many of the military establishments of our smaller allies in our own image.

In many smaller nations what is needed is internal security forces to defend against a Communist coup and subversion, and a "trigger" force to fire the first shots against external aggressors. I think we could also lay the groundwork for extensive guerrilla forces or lightly equipped units for our smaller allies and we should provide nuclear weapons for our larger allies.

Despite the changes in Communism and future potential schism between Red China and Red Russia, we still face the danger of expansionist, aggressive powers who hold that the end justifies any means. I see, under Khrushchev, a Communist Russia that has a considerable degree of self-confidence and has utilized flexibly and skillfully all of the bag of tricks of power politics, international diplomacy, and Communist methodology. I would not think that, until now, Khrushchev's Russia has been any more willing to take undue risks of war than Stalin's Russia. We have only to recall that during Stalin's lifetime, and while we held a virtual atomic monopoly, Moscow instigated the Berlin blockade and the Korean War. On the other hand, Moscow blustered, but did no more when we landed in Lebanon last summer, and Peiping drew back when faced with firmness at Quemoy.

Where, then, do we stand? What course should we take?

The key to future security

Of first and fundamental priority is a continuation of American industrial-economic-technological leadership. The damage that has been done politically and psychologically to that American leadership by Sputnik and the moon rocket is clear. A depressed economy, very large-scale unemployment, sluggish expansion of capital-goods industries can defeat us in the conflict for the world.

We have today, and we must maintain tomorrow, a nuclear deterrent—the capability of devastating Soviet Russia, no matter what she does. Today, I think, we are considerably superior to Russia in nuclear delivery capability. This deterrent will be more difficult to maintain in the missile age during the next two or three years, though as mobile weapons systems and hardened dispersed launching sites are developed it will become more and more difficult for either side to knock out by surprise attack the other's retaliatory power. The invulnerability of the deterrent, rather than an infinite number of missiles or planes, is the military key to future security. A counter-force concept in the age of missiles is an infinite and impossible concept. However, the adverse political and psychological results of accepting a numerically inferior position in long-range strategic missiles must be considered. No one weapon system—

be it Minute Man or Polaris—can provide the requisite deterrent, or the invulnerability-plus-reliability-plus-accuracy-plus-power required.

Furthermore we must not only maintain the deterrent. We must convince Khrushchev and any rational enemy leader that no matter what he does, we can clobber him. This is not easy; it involves obvious exhibitions of strength. We missed an opportunity during the Mikoyan visit. He went back, I think, with a revised opinion of the American capitalist economy; he became convinced that it was not withering on the vine. I would like to have had him see some of our military strength and take back to Russia a belief that we are strong, not weak. Too often we have tended to undersell ourselves. (As you recall, Russia went into Finland with propaganda and a show of force because Moscow thought the Finnish Communist Party would take over.) Too often, because facts are filtered through the sieve of Communist wishful-thinking, the men in the Kremlin may not get a fair and clear picture of our real strength.

Thus we must maintain in the future a capability we have now: to destroy Soviet Russia with nuclear assault. If we do maintain this, there will be, in time, a real nuclear stalemate.

But this is only one part of the problem of security in the atomic age.

Simultaneously we must control the seas of the world. Sea control is essential not only to nuclear deterrent, not only to the deterrence of limited or small wars, but to checking Communist expansionism by subversion, infiltration, and so on. It is particularly important, if possible, to confine the main elements of Russian-Chinese power to Eurasia, and not allow them to skip over the seas as they did in Indonesia to non-contiguous islands. Suppose the roles were reversed and that Russia, rather than we, had the world's greatest navy on, as well as under, the surface and the world's greatest merchant fleet. What chance would there be to halt Communist expansionism in Africa, South America, and in other areas not tied by land to Eurasia?

Our ability to check limited and localized Soviet aggressions and to meet Communist infiltration must be improved. A mobilization plan for limited war is still essential in the atomic age. Russia and China have far larger armies than we have. We need a larger armory of really small and discriminating nuclear weapons. We need more rapid reaction time for conventional war forces. We need smaller air-transportable weapons and modernization of ground weapons, and so on. Finally, we need a far better capability for fighting guerrilla wars and for training and organizing some of our smaller allies in this role and above all for anti-guerrilla and anti-terrorist operations.

History shows that limited war, utilizing no nuclear weapons or only a few, is far more likely in the dangerous tomorrows than all-out nuclear war—and the maintenance of the nuclear deterrent will not alone deter limited wars.

Thus, we have a tripod of American requirements—*nuclear deterrent; sea power supremacy; capability for limited war*. Above all, we must key our defense policies to three propositions:

There is not, never has been, and never will be in the world of man, any such thing as absolute security. To try to achieve complete security—an infinite or unlimited deterrent, call it what you will—in that direction lies disaster. As Roger Hilsman wrote: "It is a condition of life that there is death; safety is therefore only relative, for no weapon protects against time. There being no absolute, each individual can only calculate for himself the proportion of risk to sacrifice that he finds acceptable."

Secondly, we must maintain flexible strategic concepts; we must have several swords, several choices of weapons. The art of strategy, the art of diplomacy, the art of war is the art of choice. I do not believe that a nuclear deterrent, alone, is a military policy. I do not believe in frozen concepts; I do not believe any single weapon system can provide even relative security.

Thirdly, let us always indulge in the painful process of self-examination, self-criticism. Remember the words of Herbert Dinerstein:

"The brightest opportunities for Soviet expansion lie in the exploitation of the opponent's mistakes. If the Western powers, their Asian allies, and the Asian neutral countries remain strong and reasonably firm, Soviets prospects are poor."

Man is the measure

Finally, I suggest that neither policies nor machines will determine the history of tomorrow. Man is the measure of all things.

We are experiencing today another chapter—perhaps a climactic one—in the war of nerves. Khrushchev is using the same techniques once employed with such devastating effect by Hitler. He is a master of the art of brinkmanship. He blows hot, blows cold, threatens, cajoles. He has one great advantage, *vis-à-vis* the West: the Iron Curtain, which keeps from the people of Russia and her bloc the dangers, the threats, the tensions, the facts.

The West, on the other hand, must always reckon with public opinion—not with *homo sapiens*—but with Emotional Man. Terence, the Roman dramatist, wrote, "I am a Man; nothing that is human do I count foreign to myself."

This, then, is the ultimate battlefield: the hearts and minds of men.

Do you remember the anti-war battle cry of 1939? "Who wants to die for Danzig?" Today, Khrushchev is asking, "Who wants to die for Berlin?"

I suggest that in the final analysis the history of tomorrow will be written by men of will, by men of blood and guts and courage, who will face the dangerous years in which we live with calm determination and who are convinced that peace at any price is the surest way to war or slavery.



SOVIET STRATEGY

RAYMOND L. GARTHOFF

WHILE it is only too true that general nuclear war is possible, it is not probable that the Kremlin's planners will embark on such a conflict as a means of advancing their power. Flexibility in establishing specific objectives, depending upon concrete opportunities and constraints, evokes flexibility in Soviet strategic thinking, doctrine, and planning.

We must consider this aspect of the relation between Soviet military planning and policy: the influence of strategy and requirements of military policy. A Soviet General Staff periodical, circulated only among selected officers, has stated: "The missions of strategy are set by politics, but political leaders must know the potentialities of strategy, in order to set tasks before it skillfully at each concrete historical stage." Also, as this same authoritative source stated on another occasion: "The objective of military strategy is the creation by military means of those conditions under which politics is in a position to achieve the aims it sets for itself." While there is no indication that there were differences between Marshal Zhukov and Khrushchev over strategy either in the sense of plans or of doctrine, there is reason for believing that in the months prior to his fall, Zhukov exerted an increasingly authoritative voice on strategic aspects of policy matters. At present, the role of the Soviet senior advisers is correspondingly more restricted.

Strategic concept and doctrine

Beginning in 1953, soon after the death of Stalin, and reaching a climax in 1955, a new doctrinal development occurred. It marked the initial belated reevaluation of the requirements, opportunities, and constraints of nuclear warfare upon Soviet strategy. Since 1955, the modified doctrine has evolved more slowly. No significant new departures have been observed since 1956. At present, Soviet strategic doctrine represents a revision—substantial in some respects, negligible in others—of traditional concept, to meet the needs of the nuclear age as the Soviets see them.

Flexibility, Firepower, Follow-Up

After reviewing very briefly the course of this revision, we can examine current strategic doctrine.

Incredible though it seems, there is considerable reliable evidence that the evaluation of the requirements of nuclear warfare was virtually ignored until after the death of Stalin. One contributing factor was the security-secrecy phobia which prevailed most intensively from the middle of 1947 until mid-1953. Literally, this fear denied to many Soviet military leaders even a superficial knowledge of the potentialities of nuclear and other new weapons which any newspaper reader in our country could have had.

Late in 1953, Soviet doctrine and training began, slowly at first, to readjust to the needs of the new world of weapons. Doctrinal development simultaneously followed several trends, including an effort to stimulate military thought. Several new departures affected Soviet strategic theory. Revised views came to recognize the substantial effect on strategy and tactics of new weapons; that the "laws of war" are equally binding on socialist and capitalist armies (though better understood by and with objective potentialities still favoring the former, in the Soviet view); and that Soviet military history and thought had not always been infallible.

These revisions were accompanied by a clarification of the scope of "military science" which redefined it so as to stress the professional nature of military science and planning. In effect, the new theory inclined toward excluding from the competence of the Soviet military the basic question of peace or war—of the objectives of national strategy. At the same time, by implication, it excluded from the competence of political leaders the

questions of strategic concept and doctrine—of how to wage a war. There is reason to associate this development, significant for strategic formulation, with the rise of Marshal Zhukov to the post of Minister of Defense in early 1955. Moreover, there appears to have been a decline in the vitality of Soviet military writing in the period since his fall.

The current concept

What is the Soviet strategic concept now, after more than five years of review and revision? In the thermonuclear era, much as before, strategic concept continues to rest firmly on the belief that the primary, direct objective of military operations is the annihilation of the enemy's military forces, and not the destruction of his economic and human resources. The application of this concept has been revised to accord with contemporary weapons. But the Soviets unambiguously adhere to the classical concept that the essential role of combat operations is the destruction of the enemy's armies. With due deference to the potency of nuclear weapons, the priority objectives are the enemy's strategic nuclear delivery capabilities—the application of current weapons in the traditional concept of destroying the enemy's ground forces rather than his military potential.

There are indications that this concept is influenced by the voracious aims of Communist imperialism. Once the enemy's armies are destroyed, political and police techniques would refashion the will of the populace and exploit conquered economic resources. They much prefer this to inheriting vast areas of radioactive rubble—a particularly relevant factor if one considers the case of a deliberate war of conquest.

Thus, the Soviets reject reliance on a strategy of nuclear bombing of the enemy's warmaking capacity—his economy, industry, and populace—as the most effective means to victory. Such targets, as even they admit, would be subjected to attack, but the fundamental concept remains the annihilation of the opponent's ground forces and the seizure and occupation of his territories.

In keeping with this concept and with national policy,

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Soviet doctrine holds to the coordinated use of all forms of military power as expedient. This means flexibility in selecting military means, as well as in deciding between military and political means. It is also reflected in belief in the principles of balanced and varied military capabilities. Under the impact of nuclear and other modern weapons, the application of this doctrine has been extended from the idea of simply a combined force operating in a theater battlefield, to include coordinated operations on a global scale. Thus, combined operations by balanced forces remains the basic doctrine governing the organization and employment of Soviet military capabilities, now more than before broadly construed in terms of missions and forces.

Complementing the reaffirmation of combined and balanced forces, Soviet doctrine consistently continues to reject any planning based predominantly upon reliance on any particular weapon system—including the thermonuclear ICBM. This principle is deeply ingrained in the Communist precept to avoid gambling on any single or easy means to victory. Such over-reliance on any weapon is condemned as "adventuristic." Moreover, in evaluating the forces needed to implement their strategic concept, the Soviet military leaders recognize the necessity of neutralizing enemy missiles and bombers thousands of miles away, while at the same time overcoming ground forces in all the vast reaches of Eurasia that are outside of Communist control.

To meet these needs, the Soviets consider that nuclear striking capabilities do not suffice. In their view, victory entails defeating the enemy's forces in order to seize and occupy vast land areas—and in the last analysis, only a ground force can do that. Indeed, they believe that in a nuclear conflict this need may be even greater than in a "conventional" war.

For one thing, the nuclear destruction of great numbers of enemy ground troops will require very large reserves. Soviet generals have plainly said that a war of nuclear weapons requires larger numbers of men than before. For another, they may believe that industrial, economic and manpower resources of other countries seized by advance on land would compensate in part for the extensive nuclear damage to the Soviet economic plant. Moreover, such action insures an end to enemy recovery and resistance in the area seized.

Over the past few years, the Soviets have reviewed and modified their doctrine without revising its fundamental assumption of a long and arduous war requiring large armies. Let us note a passage from the Soviet Army's official journal (*The Military Herald*) of June 1958:

"Technology of course quickens the pace of things, and generally speaking the appearance of new technical means creates now certain possibilities for achievement of victory in shorter times than heretofore. Nonetheless, the armed forces of the two sides, and the scale of the arena of armed conflict under contemporary circumstances, are so great that one could scarcely conclude a

war in a short period. Even the appearance of atomic and hydrogen weapons, and IRBMs and ICBMs, cannot secure the swift destruction of such massive armed forces, and consequently not the conclusion of the war. Moreover, the use of these weapons by both sides will more likely lead to extending the duration of the war than to speeding it. Hence, while in the past major wars could be short or long, in our time all major wars inevitably assume a quite drawn-out character."

Consistent with this image of a long war, the Soviets describe the basic military, economic, and morale potentials as "the decisive factors" in determining the outcome of war. An authoritative publication of the Ministry of Defense has said; "In the strategic planning of war the correct employment of the troops must be estimated not only for its initial period but for its whole course." In a rare specification of a strategic planning requirement, one Soviet general in 1957 disclosed that "strategy must establish the requirements of the armed forces for the first year of military operations." Subsequent requirements, he added, would be determined during the course of the war.

A future general war is seen as a long and hard one, waged by large armies employing combined-arms operations, where victory is won by destroying the enemy's forces and seizing and occupying his territory.

Initial surprise does not determine outcome

An important revision of Soviet doctrine during 1954 and early 1955 recognized the greatly increased importance of surprise achieved through supersonic aircraft, long-range ballistic missiles, and nuclear weapons. Nonetheless, the Soviets hold that surprise can be neutralized by a vigilant and prepared major power, so that surprise will not determine the outcome of a war. Surprise is considered unreliable or insufficient to yield a quick victory in a war between prepared major powers. Should the Soviets launch a general nuclear war, they would strive for the maximum effect of surprise. However, they will not be led to initiate a war simply because they believe they can achieve surprise, for surprise in itself is incapable of yielding a lightning victory. A Soviet general, in August 1958, remarked that "It will not be possible to base one's calculation on surprise attack alone. In the nuclear era as before, the outcome of war will be decided by the whole complex of economic, social, political and military factors, and not by the factor of surprise alone."

However, there was a significant innovation in Soviet strategic planning associated with the increased importance attributed to surprise. At the beginning of 1955, the Soviets concluded that mere repulse of an attempted surprise upon the Soviet Union might be insufficient, and that if an enemy were clearly about to attack, a preemptive strike should be made. Since there has been some confusion on this point, let it be made clear here that the Soviets explicitly distinguish the preemptive strike from a preventive war. It is to be

undertaken only if the enemy should attempt a surprise. A preemptive attack is contemplated for a situation which is *not* a time of their choosing or the result of a deliberate, planned build-up for optimum Soviet position for war. Rather, it represents a time when the Soviets believe they must act quickly or relinquish the strategic initiative. It is a desperate last-minute effort to seize the initiative from an enemy who is about to attack or who is attacking. Except for denial in propaganda, this preemptive action has never been discussed in the open military press, but it has been referred to many times in classified papers. "Preventive war"—or, simply, deliberate initiation of hostilities—would of course not be mentioned even in the type of classified papers which have discussed preemptive attack. But in considering available indications of Soviet military thinking, and the particular concept of preemptive attack adopted in 1955, it is wise not to confuse the two.

Calculations of risk and gain

Until now we have examined some basic aspects of Soviet planning for a general war. That concept is predicated on the fundamental principle that war, as an instrument of policy, may assume various forms. Limitations on theaters of conflict, or on use of nuclear or other weapons, are considered as matters involving calculated advantage, and calculated maneuver to establish the conditions which would induce the opponent in his own self-interest to accept the limitations.

In their published writings the Soviets discount or deny the possibility of local and limited wars, particularly a limited nuclear conflict. However, there are good reasons for doubting that such statements represent the official view or foreshadow future Soviet behavior. They want to deter the United States from initiating such wars, and from preparing to defend against them. In seeking to maneuver the U. S. into positions of choice between massive but mutual retaliation, or no effective response at all, the Soviets strive to deprive us of confidence that we have the alternative of limited nuclear reaction. But the Soviets' actual future initiative or response will be based on calculations of risk and gain. Limited wars, indeed, represent the classic type of Soviet limited military action, for limited objectives, and at limited risk. The Korean conflict is a notable example.

Now let us turn to brief but important reflection on the forces and capabilities envisaged and created in support of the Soviets' strategy. We need review in no detail the inventory of Soviet military power. The general facts are well known: a very large ground army, now equipped with excellent modern matériel; large air forces, including substantial tactical, airlift, and naval supporting forces as well as enhanced air-defense and long-range airpower; in the navy, a moderate conventional surface force and a very large submarine fleet.

The main point of interest to our inquiry is the significant fact that the nature, size, composition, organization and deployment of the armed forces *all* reflect very clearly the Soviet strategic concept and doctrine. The

view of extended campaigns even in general war, in addition to being reflected in military writings, is supported by the corresponding Soviet capabilities in the strategic offensive, active and passive air defense, and powerful land-air-sea theater forces. For example, two-thirds of Soviet military aircraft continue to be assigned in support of surface forces; and despite limited reductions—well below those publicly announced—the Soviet Army still maintains at varying strength some 175 line divisions, about 140 of which are combat-ready.

In building the military capabilities to implement their strategic concept, the Soviets have been guided not by replacement of the capacities for conventional warfare, but by the addition to them of capacities for either general or limited nuclear war.

Image of future war

The Soviet image of future wars is a product of their own doctrinal views, together with estimates of the enemy's plans and capabilities, as applied to various strategic contexts. There are differing images to reflect different possible future wars—wars of conquest and wars of defense, total wars and limited wars.

First, general or total war. The Soviet image of future general war differs from that generally held in the West. Several aspects of this differing view deserve attention.

Foremost is the continued emphasis on massive and extended land campaigns, even in nuclear war. In Marshal Zhukov's still authoritative words: "Airpower and nuclear weapons by themselves cannot decide the outcome of armed conflict. Along with atomic and hydrogen weapons, in spite of their tremendous destructive power, large armies and a tremendous quantity of conventional arms inevitably will be drawn into military operations." It is clear that Marshal Zhukov and his colleagues and successors do not mean the masses of men which so often were the Red armies of World War II. They mean the large, modern, nuclear-armed and prepared land and supporting air and sea forces they now maintain, engaged in major campaigns in Europe and other theaters. Earlier we noted the Soviet emphasis on the continued need for balanced forces, and unwillingness to give a predominant role to any single arm—including the ICBM.

As the foregoing implies, the Soviets visualize a general war as one continuing well after an initial exchange of nuclear strikes. They continue to assert that a future major nuclear war will be a long one and, specifically, that a lightning war between super-powers is an unreliable strategy. As we have seen, they hold that surprise, greatly as it has increased in importance, cannot in itself determine the outcome of a war against a major world power, if that state is prepared for such a contingency and remains alerted. Of course, the Soviets do not regard this condition as one automatically or easily achieved. Evidently they intend to devote sufficient effort to defensive and retaliatory capabilities—and expect us to do the same—to be prepared to a degree that

in their view denies sure victory to an enemy who resorts to surprise attack.

The Soviets do not subscribe to the view that mutual devastation spells mutual defeat. They believe Soviet mobilization and deployment of ground forces would be much less critically disrupted than would ours by the initial and continuing nuclear exchange, because of their larger force-in-being and its deployment. Presumably, the mutual destruction of strategic air and missile bases and cities would consume the major part of the respective long-range air forces and missiles. Evidently the Soviets calculate that the continued efforts of these forces would, in a strategic sense, cancel each other out. The armies that remain are viewed as still capable of defeating the proportionately weakened enemy forces on the ground. Thus, they apparently hope they can go on to win by occupying the Eurasian continent and shrinking the Free World to a devastated America. They visualize the role of the combined ground and supporting air forces not as a subsequent mopping-up team, but as a contemporaneous significant element in determining the outcome of the war. Airborne and armored forces are considered especially suitable for the nuclear battlefield.

Thus, in the long run, the basic economic and military potential of the Communist bloc, especially that mobilized before hostilities, is counted upon to "win." This does not mean, though, that the Soviets are so certain of success, and so callous to costs and risks, that they would launch a general war in the foreseeable future. The image I have drawn is that now held as the prospective course of a general nuclear war should one materialize.

The current Soviet view of general war we have discussed may not appear adequately to reflect what many of us would regard as a full appreciation of the implications of nuclear and thermonuclear weapons. There probably has been some lag in appreciating the difference between small- and large-yield weapons. Soviet future views may approach somewhat closer to ours, particularly as the pressure of procurement of exceedingly expensive emerging weapons systems compels further scrutiny of the allocation of the Soviet military budget, and as manpower demands outstrip the supply. Khrushchev may come to impose new ideas of his own. But there are also deep and compelling influences which make unlikely a total or a sudden change in the Soviet fundamental concept and doctrine. In addition, Soviet limited war requirements contribute greatly to our need for large balanced forces.

A nuclear-free major war

Consider now a major war where no nuclear weapons are used. A nuclear-free general war, in the fashion of World War II, seems quite unlikely indeed. Particularly during the past five years, the Soviets have shown signs of recognizing the decline of this possibility in view of American and NATO policy. Nonetheless, the continuing view was expressed by Marshal Zhukov in 1957

in reply to a question on whether nuclear weapons would necessarily be used in a future war: "No one, including I, can answer now with completeness because all wars, major and small, arise, are waged, and end, under different political, geographical and economic conditions."

The Soviets may attempt to place the West in a position where we will not use nuclear weapons: that is, to present us with a major challenge they would deem to be not serious enough to provoke us to all-out massive retaliation in circumstances of mutual deterrence. Thus, while it is not probable, the Soviets might sometime launch a nuclear-free attack on West Germany, or on Western Europe in general, if we continue to depend so much on nuclear weapons and if they had been led to judge mutual deterrence to be so strong a restraint on American action that we would withhold our nuclear fires in response to such a major conventional attack in which neither major protagonist was directly threatened. This might at the least present us—and the people of the area involved—with a most difficult choice. Whether or not this would lead us to fall in line with Soviet expectations, it would be sufficient if they came to believe we would forego our nuclear retaliation. This dilemma, should it arise, would derive from the contrast of continuing Soviet dual capabilities for nuclear and nuclear-free war, while the West tends to be increasingly geared for nuclear conflict only.

Limited use of nuclear weapons

This type of conflict is distinguished from general nuclear war by the fact that restrictions born of mutual advantage would limit the employment of nuclear weapons to "tactical" military targets, however these targets are defined and delimited. Such a conflict, it is realized, is more likely than a major European nuclear-free war, since the United States is not likely to engage in a major war without resort to its nuclear arsenal. A veil is drawn over the Soviet image of this type of war, for they do not publicly admit the possibility of limited nuclear war. In fact, the attempt to distinguish between strategic and tactical weapons or targets is declared propaganda and a ruse. Several considerations underlie the Soviet refusal to publicly admit the possibility of limited nuclear war.

First, to do so would seriously weaken the Soviet campaign for prohibition of all atomic weapons.

Secondly, and more basically, they realize that the prospect of the limited use of nuclear weapons would assist the West in realigning the balance of power for wars other than a total one. Moreover, it is quite possible that, in the Soviet view, this might encourage us to start limited nuclear wars against the Communist bloc.

Thirdly, it would shatter any Soviet hope of a major nuclear-free war.

Finally, it would create an alternative to possible situations in which the United States might have to choose between a strategy of massive but mutual retaliation,

and one of either Western inaction or likely defeat. Evidently the Soviets would not like us to know with certainty that the alternative of limited nuclear war was available.

Local wars

Now we come to the last type of possible future wars—nuclear or nuclear-free local conflicts. Again, such a war is not much discussed by the Soviets—perhaps because it is their classic type of military action. Three circumstances greatly increase the possibility and danger of future local wars of Soviet aggression. One is U. S. deterrence of the USSR from general war as a means of attaining Soviet expansion aims. A second is the Soviet counter-deterrence of our retaliatory strength—to prevent us from using this strength to deter or to respond to limited Soviet aggression. Calculated risk that the U. S. will not use SAC in retaliation for local aggression may increase as Soviet offensive striking power is augmented and the ICBM becomes an important operational capability. Thirdly, if increasing U. S. reliance on nuclear weapons continues, it may induce the Soviets to engage in conventional local wars under cover of mutual nuclear deterrence, particularly in indirect aggression.

For these and other reasons alluded to earlier, we may conclude that the Soviets could have good reasons

for not introducing nuclear weapons in a local war. But in retaliation to our initiation of their use, the Soviets would (with one or two possible cases of exception) almost certainly reply with localized nuclear counterblows. The danger of the expansion of such a war would exist, but they as well as we would gain from not expanding the limits too widely. They would calculate the risks and costs, and would expect us to do the same.

If the Soviets ever become convinced that not only have we been deterred from general war but also that they have “counter-detected” us from meeting lesser overt challenges, there would be menacing possibilities. The stalemate born of mutual deterrence as a shield against threat and possible employment of their vast conventional forces could be used to expand Soviet control at what they could conclude was acceptable risk.

In the Soviet view, war is an instrument of policy. If resorted to, war will include or restrict the use of particular forms of military power as expedient to achieve Soviet aims, including self-preservation. Strategic doctrine, and the military establishment, are fashioned to allow the national leaders flexibility in making such decisions under various future circumstances.

1959 REUNION CALENDAR

August

1st Armd Div: 21-22 Aug. Severin Hotel, Indianapolis, Ind. Write Col. Leo B. Conner, 1529 18th St. NW, Washington 6, DC.

1st Inf Div: 21-23 Aug. Hotel Manger, Rochester, NY. Write Arthur L. Chaitt, 5309 Germantown Ave., Philadelphia 42, Pa.

1st SSF: 14-16 Aug. Hotel Paliser, Calgary, Alta., Canada. Write Eugene McCormick, 1901 S. 4th St., Lafayette, Ind.

4th Inf Div: 13-15 Aug. Ben Franklin Hotel, Philadelphia, Pa. Write Iz Goldstein, 1276 E. 54 St., Brooklyn, NY.

7th Armd Div: 14-16 Aug. Willard Hotel, Washington, DC. Write Johnnie Walker, 375 Valley Road, Haworth, NJ.

69th Inf Div: 21-23 Aug. Sheraton Park Hotel, Washington, DC. Write Irving Botkin, 287 First Ave., New York 9, NY.

83d Inf Div: 20-22 Aug. Statler-Hilton Hotel, Detroit, Mich. Write George Cooley, 1459 Beachwood St. NE, Warren, Ohio.

86th Inf Div: 30 Aug-1 Sept. Hotel Seelbach, Louisville, Ky. Write James B. Dickerson, 1049 Park Ave., Paducah, Ky.

88th Inf Div: 14-16 Aug. Shoreham Hotel, Washington, DC. Write Sidney Heyman, 2017 Forest Dale Drive, Silver Spring, Md.

95th Inf Div: 21-23 Aug. Hotel Knickerbocker, Chicago, Ill. Write Francis E. Safarik, Box 1274, Chicago 90, Ill.

101st Abn Div: 14-15 Aug. Statler Hotel,

NYC. Write Col. Leo B. Conner, 1529 18th St. NW, Washington 6, DC.

Merrill's Marauders: 29-31 Aug. Wentworth-by-the-Sea, Portsmouth, NH. Write David Hurwitt, 22 Basket Lane, Hicksville, NY.

September

5th Inf Div: 5-7 Sept. Mark Twain Hotel, Elmira, NY. Write Lloyd A. Rader, 451 E. Clay Ave., Roselle Park, NJ.

6th Armd Div: 3-5 Sept. Hotel Sheraton, Louisville, Ky. Write Edward F. Reed, Box 492, Louisville 1, Ky.

10th Armd Div: 5-7 Sept. Penn Sheraton Hotel, Pittsburgh, Pa. Write J. Edwin Grace, 108 Langdon Ave., Watertown 72, Mass.

27th Inf Div: 25-26 Sept. Hotel Queensburgh, Glens Falls, NY. Write Lawrence Reagan, Box 1403, Albany, NY.

32d Inf Div: 5-7 Sept. Stevens Point, Wis. Write Edward T. Lauer, 8035 Stickney Ave., Wauwatosa 13, Wis.

34th Inf Div: 11-13 Sept. Sheraton-Montrose Hotel, Cedar Rapids, Iowa. Write Lt. Col. Junior F. Miller, Red Horse Armory, Des Moines, Iowa.

35th Inf Div: 18-20 Sept. Marion Hotel, Little Rock, Ark. Write Maj. Gen. Mahlon S. Weed, Box 1001, Kansas City, Kans.

36th Inf Div: 4-6 Sept. Hotel Roosevelt, Waco, Tex. Write Harold D. Loftus, Box 5068, West Austin Sta., Austin, Tex.

37th Inf Div: 4-7 Sept. Carter Hotel, Cleveland, Ohio. Write Jack R. McGuire, Room 1101, 21 W. Broad St., Columbus 15, Ohio.

65th Inf Div: 25-26 Sept. Penn Sheraton Hotel, Pittsburgh, Pa. Write Albert J. White, 712 Highland Ave., Canonsburg, Pa.

91st Inf Div: 26 Sept. (tentative), Seattle, Wash. Write Archie Walker, Drawer 2219, Seattle 11, Wash.

100th Inf Div: 11-13 Sept. Ben Franklin Hotel, Philadelphia, Pa. Write Thomas C. Burdett, 114 S. Main St., Taylor, Pa.

104th Inf Div: 5-7 Sept. Deshler-Hilton Hotel, Columbus, Ohio. Write Howard S. Bedney, 695 Hewlett St., Franklin Square, NY.

VII Corps Veterans: 20-24 Sept. McAllister Hotel, Miami, Fla. Write S. C. Hutchinson, 706 Lafayette Ave., Colonial Heights, Va.

October

11th Adn Div: 16-18 Oct. Hotel Commodore, Atlantic City, NJ. Write Louis Goran, 68 Lexington Ave., New York 10, NY.

45th Inf Div: 30 Oct-1 Nov. Skirvin Hotel, Oklahoma City, Okla. Write Richard M. Thomason, 2205 N. Central, Oklahoma City 5, Okla.

November

77th Inf Div: 8 Nov. Sheraton-McAlpin Hotel, NYC. Write Joseph H. Woolwich, 28 E. 39 St., New York 16, NY.

82d Div (WWI): Second, 8 Nov. Hotel Dempsey, Macon, Ga. Write James F. Brown, Jr., 1005 Bankers Ins. Bldg., Macon, Ga.

90th Inf Div: 6-8 Nov. Kansas City, Mo. Write Samuel W. Fry, Tulsa Co. Court House, Tulsa, Okla.



Image of

Captain ROBERT De MARCELLUS

In the current cant of the advertising world that haunts Madison Avenue, account executives who don't speak of the "updating image" just aren't "with it"! The expression escaped Madison Avenue to travel farther afield and now it has reached the Army. What everyone now wants is a new Army image for the public and service. A one-Army image.

Now this isn't bad at all for it merely recasts an Army need which has long been recognized by less convenient terms. Soldiers are agreed, call it by what you will, that the public must have a better picture of the Army, its role, and its vital importance to national survival.

Attend a chapter meeting of AUSA, listen in on an impromptu bull session at the student officers' mess, talk to retired old warriors, and the need is apparent; but also apparent is a difficulty to grasp the illusive image required to satisfy all members of the Army family.

Other services have simple images. The British Guards regiments present no problem as they mount guard in their red tunics. The United States Marines have as their image the D.I. and the Iwo flag-raising. The Air Force publicizes visionary young men rocketing through space in shining flying machines. Nor does the Navy have an image problem. Wearing their peacoats, they show the flag around the world much as they have done since Admiral Mahan's day.

But the Army has a problem.

What common ground does the missile specialist at Redstone share with the Fort Benning marksmanship instructor? What ties bind the

Captain Robert de Marcellus, after six years as CO of a rifle company of the 211th Infantry, is adjutant of the 160th Transportation Battalion, Florida Army National Guard. Commissioned in 1951, he was a platoon leader in the 23d Infantry in Korea. Now President of a public relations firm in Palm Beach, he is Second Vice President of AUSA's Chapter there.

the Nation Under Arms

Quartermaster colonel at Fort Lee to the insurance salesman commanding a National Guard Battalion? A recruiting sergeant in Dallas with a drafted recruit or an ordnance technician at Springfield Arsenal?

And yet there is a bond. Each one of these men is moved by the word ARMY, each one takes personal pride in an Army success. But what is the Army image?

The Army of the United States is not a tight little band of brothers. Its image is not so limited. The Army image is large and untidy, vague and unlimited. In it is contained the latest Canaveral missile triumph, to be sure, but also a smelly implacable character who fought his way to Atlanta and the sea with General Sherman; whose undistinguished cousin paced off the end of three dictatorships as he spearheaded the Allied assaults on the Axis.

Perhaps it is this socially naive but deadly individual who typifies the most common picture of the "Army." This gentleman's genealogy is perhaps the clue to finding the real "Army image."

Born on Main Street on an uneventful day to an average middle class family of varying financial standing, he went to school with very little thought of anything else than just "going to school." He didn't mean to be a soldier, other than maybe just trying it for a spell. Then one day his daily occupations were threatened in a hard-to-understand way by a foreign government. He didn't like that, so he enlisted along with his neighbors. Perhaps he joined the community's National Guard unit whose tradition of soldiering for community defense antedates the Nation, or maybe his neighbors voted him into service with a federal unit as a most reluctant dragon. Perhaps he wished faster action and enlisted with a Regular unit.

However it came to pass, he and his fellow citizens found themselves banded together in a giant enterprise of life-or-death struggle. A people in arms determined to fight. Then some mysterious alchemy transmuted this mass of citizens into the "GI." In the words of *Turkey in the Straw*, "Shake 'em up, throw 'em up, any way at all," he is still a GI and the Army he belongs

to will always be a product of the material within it. A killing army, an improvising army, an incomparable army, these things it can become; but a tautly disciplined army, a parade-conscious army, a highly shined army it has refused to become over the centuries. Those things do not interest the people of which it is formed. More than any other service, more than any other army, the Army of the United States springs from the people of those States. They imprint upon it the type of leadership they will follow, the kind of discipline they will obey, and the missions they will accomplish. They also create the Army's fuzzy-edged image of the nonchalant and determined GI.

THE attempt to create a new Army image, perhaps one based upon spit-and-polish airborne troops, will not succeed. Neither will one based upon missile experts and nuclear weapons. These are things dear to the heart of the professional soldier, but they are not in consonance with the Army's true nature. The regular must remember that he exists only to fashion the tools and plan the plays that must then be intrusted in battle to the hands of armed citizens. The United States regular is far more than a bandbox soldier. He must know the perfection of the military art, he must feel the thrill of military precision, but above all he must be dedicated to keeping ready the framework by and in which the American citizen defends his land. Here the regular touches the soul of a nation's people, and in the image of the embattled citizen the regular finds his greatest challenge and glory.

In the final analysis, then, the Army image is that of the armed and trained citizen resolved to fight. From these citizens the Army draws its great strengths and also its weaknesses. Listen again to the bull session or the AUSA Chapter meeting. Is not the image these men grope for that of the great association that linked them as comrades in arms? Isn't the old soldier's nostalgia for the bugle in reality a remembrance of the days when he accepted the challenge of full citizenship?

The Army image is the image of the people of the United States under arms.

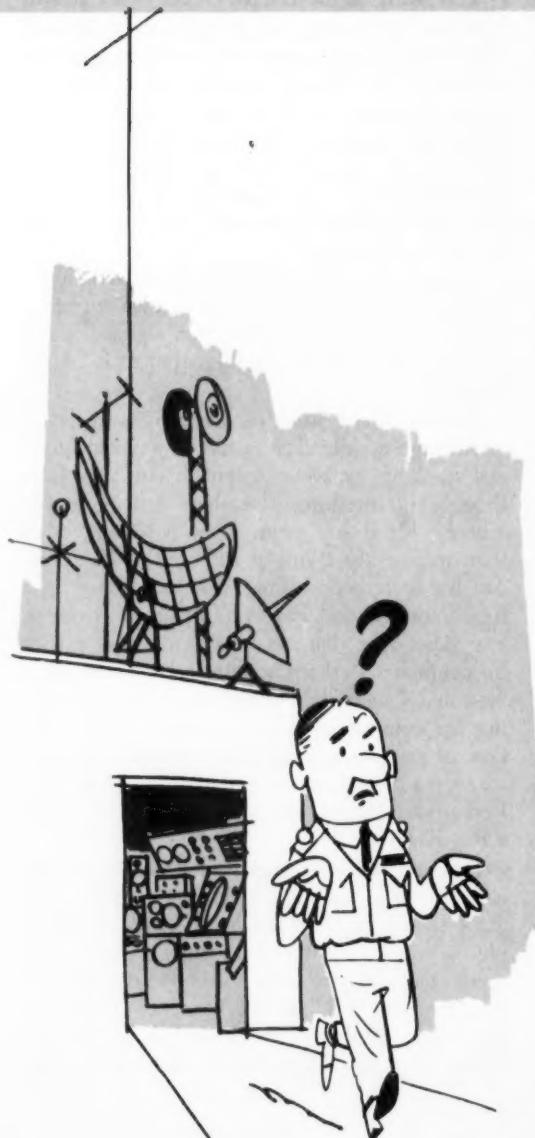
TOO MUCH TACTICAL COMMUNICATIONS-ELECTRONICS

Colonel BENJAMIN H. POCHYLA

HOW do you determine whether communications-electronics requirements specified by using agencies are bona fide? To what extent should the signal officer at the headquarters determine the validity of these requirements? What is the communications-electronics saturation point for a field army? What is flexibility? What is the optimum redundancy factor in terms of command-control requirements? The answers to these and many similar questions are complex and largely intangible. The Signal Corps alone cannot answer them, but by informing the customers of our difficulties we may hope to obtain guidance.

The quantity of communications-electronics equipment in the combat area is increasing at an alarming rate. The using units call for more and more new capabilities involving communications-electronics systems and equipment, much of which is highly sophisticated and complex. The logistical implications of this trend are evident. Many units are growing heavier and slower and are consuming more POL than ever. Communications-electronics elements must, of course, be as mobile as the units they support. Powerful radio and radar stations are large users of POL as are the ground and air vehicles that provide their mobility. Our efforts to miniaturize, microminiaturize and transistorize our equipment are confounded by dispersion requirements that demand more power to cover expanding distances. It may be that we are blindly spinning a communica-

Colonel Benjamin H. Pochyla, Signal Corps, is Chief of Combat Developments, Operations and Training, in the Office of the Chief Signal Officer. An industrial engineer with the Bell Telephone System and a Cavalry Reserve Officer before World War II, Colonel Pochyla was integrated into the Regular Army in 1946.



tions web from which we will not be able to escape if we are forced to fight. It may be that the electronic environment we are developing will include so many electronic radiators that the enemy will not have to worry about jamming us because we will do it to ourselves.

New tactical concepts have resulted in a definite trend toward centralization of command authority and staff functions. Centralization calls for more circuitry which pyramids toward central points such as tactical operations centers, tactical information centers, administrative support commands, and air-defense operations centers. There are indications that some of these centers will be cumbersome and complex, and will require internal communications systems of greater capacity than were formerly used by whole armies. A recent study by the U. S. Army Electronic Proving Ground considered trends in communications as we know them today and projected them into the future. It concluded that the trends established during the last ten years will lead to requirements in 1970 several orders of magnitude greater than we know today—and today many of us feel that we have just about reached the saturation point. We might pause to consider how much farther we should go in developing more firepower, more mobility, more dispersion and flexibility, and determine what our over-all capabilities should be.

Let us examine some operational concepts as they affect communications-electronics requirements.

Electronic control of firepower

Communications-electronics are being asked to perform target acquisition and observation functions that in the past were done by sound, sight and personal presence. Since he can no longer see it from a hillside, the battle must be brought to the commander by communications-electronics. The higher the headquarters at which we must depict the battle, the more complex our communications-electronics systems become.

Firepower is of little use if we cannot control and direct it. The combat commander has firepower available now sufficient to virtually demolish any type of target he may find, if he can control it. Perhaps the complicated problem of combat surveillance should get the emphasis that firepower and missiles have had during the last several years.

How much more mobility do we really need? What is the proper balance between tactical mobility and strategic mobility? On the atomic battlefield combat units must be able to move quickly and over great distances. But will they be on the move continuously—like ants on a ruptured ant hill? We must never forget that mobility carries a substantial communications price tag. Should current trends prevail, more mechanization, more black boxes to supplement the physical senses, and more communications to control mounted elements will result. Then the infantry division will become heavier, slower and require more support instead of the lighter, faster, more mobile unit we need. As we

add equipment to assist and replace men, we put more in our battle formations, in terms of tons and cubes, than we take out. We subscribe to the principles of mobility, flexibility, versatility, and speed by riding our soldier to the point of battle. Then to control him and provide him electronic eyes and ears we dismount him to fight with man-pack loads of communications-electronic equipment that would overburden a mule. New technology will make these loads lighter, but we must not continue to add requirements. If we do, even our microminiaturized equipments will not give us the mobility we seek. Attempts to do everything by machine and computer lead us to the problem of developing equipments that travel in vans. Many of these vehicles are not only road-bound, but limited to superhighways. This is not mobility as we need it.

Dispersion: Austerity versus command control

How far do we go in dispersion before the cost of command-control becomes prohibitive? As units and fighters become more widely separated on the battlefield, we must depend on communications-electronics to visualize and control the action. The Army Area Signal System has been devised to provide this control. While it is the best we have devised so far, the limita-



tions of our area system must be clearly understood. It is a massive mobile trunking system, difficult to control in detail and relatively unresponsive to rapid changes involving individual circuits. Its size and complexity will engender additional problems under the stress of combat. Blackout conditions will increase installation time by more than 100 per cent. Maintenance is a major problem and the cost in dollars, manpower and vehicles will strain our resources to the breaking point. We must have dispersion, with its inherent requirement for mobility, but we must reach this goal with communications-electronics as austere as possible.

We cannot provide communications systems for an army in the field equivalent to the commercial system available in Continental United States. The parameters of size, weight, mobility, ruggedness and reliability inherent in our equipments negate this. We must provide field units with specified amounts and types of equipment that will afford an adequate communications system under all conditions. The more we centralize authority, the more echelons we add; the more high commanders attempt to personally supervise low-level action; the more complex, elaborate, and uncontrollable our communications-electronics systems become.

One of the most difficult tasks facing the Signal Corps is that of determining the actual communications requirements of an army in the field. This task is extremely difficult with our present forces, and as you add the variables and unknowns of future forces it becomes imponderable. The average American civilian and soldier is communications-happy. From childhood we develop in an environment of abundance in recorded, oral and pictorial communications. One of our difficulties is that we have not yet found a method of adjusting the civilian's communications habits to the more austere standard that is required when he becomes a combat soldier. (The Soviet Army does not have this problem. In the USSR there is one telephone for every 56 persons, compared to one for every three in the United States.) We have not come up with a firm solution for determining the validity of military communications requirements. We clothe the results of tests and maneuvers with past experience and personal knowledge to arrive at questionable compromises.

Commanders and their staffs frequently demand and are provided excessive or nice-to-have communication service, particularly during peacetime maneuvers and field exercises. This service is taken for granted as representing legitimate wartime requirements that eventually are reflected in tables of organization and equipment modification lists. These non-essential services may be viewed from both a quantitative and a qualitative standpoint. The installation of excessive telephone instruments in practically all field headquarters is common practice. These in turn expand the requirements for trunk lines and switching facilities. Private lines and "hot wires" also result in increased requirements with less flexibility and effectiveness of the over-all sys-

tem. Military characteristics (which are prescribed by the using agency) frequently prescribe refinements and extra gadgets—automatic tuning of radio sets, extra-high-fidelity audio amplifiers, and automatic telescoping antenna masts—which have a significant impact on training and maintenance.

The poor communications discipline that exists throughout the Army should not be overlooked. You need only observe a field maneuver, or even an indoor exercise, to gain an indication of the misuse of communications service.

The trend toward centralization of authority is also a major contributor to the problem. This inevitably brings up the question: how much can you decentralize an army employing atomic weapons, particularly for the first time? The basic misunderstanding—that decentralization eliminates control—must be overcome.

Command control is what makes an army tick, and the key to good command control does not lie in redundancy of means. Streamlined, reliable systems with commanders and staff elements more aware and more knowledgeable of communications-electronics are probably the best solution to the problem. Another solution lies in moving the signal officer up to a general staff position as in other armies and in all joint headquarters. A voice direct to the commander would be a step in the right direction.

The desire for close coordination and intimate personal relationships, maintained under World War II concepts of operation by the nearness of units to one another, must not be allowed to color communications-electronic requirements. Communications-electronics will not substitute for person-to-person contacts, and attempts to use them in this manner will result only in more complex, massive systems. The use of mission-type orders, automatic supply, and serious delegation of authority would undoubtedly reduce the communications-electronics burden.

What to do about it

We must continue to develop, and provide our tactical commanders with, the very best communications-electronics equipment that science and industry can offer. We must continue our research and combat development efforts to the maximum extent that our resources will permit. But we must not overload or saturate the battle area with nice-to-have gear that provides only an occasional or marginal capability. We must not provide capabilities simply for the sake of having more of them.

To determine where we are heading in terms of tons and cubes of communications-electronics gear per capita or per square miles of combat area, we must pause long enough to critically review our operational concepts and doctrine and their impact on tables of organization, tables of allowances, equipment modification lists, and the like. This is an Army-wide job that requires command attention at every headquarters.



Once he was a real cool cat prowling the back streets of L.A. He grew into a soldier, thanks in part to Lieutenant Collins, and the day came when he could say "Let the Gooks beware—I've got a BAR and know how to use it."

VASQUEZ

Lieutenant J. D. LEWIS

I NEVER got around to putting into an album the pictures I took in North Korea during the winter of 1950-51. Several are in an envelope taped inside the cover of General S. L. A. Marshall's *The River and the Gauntlet*. One picture, blurred and spotty from a dusty lens, shows eight soldiers around an SCR-300 radio which rests on the hood of a jeep. They are clad in parkas or heavy jackets and most have earflaps pulled down. Uniformly, shoulders are hunched and hands are in pockets. With one exception, their expressions are

Lieutenant J. D. Lewis is the pseudonym of a combat arms officer who is a graduate of the U. S. Military Academy and is presently on the staff of a service school. This is his first published piece of fiction.

intense, troubled. The exception, shorter than the others, has turned his head towards the camera and wears a tight-lipped smile under a heavy coat of dust. He is 19-year-old Manuel B. Vasquez, who gets lost and presumably killed some time after 1400 hours the next afternoon.

Lieutenant Collins, our gunnery officer, had taken Vasquez as his personal project and protégé long before the regiment quite suddenly sailed for Korea in July. Collins pulled him from assistant gunner in a squad and figuratively hand-carried him through elementary geometry to the facility in grid declinations, azimuths and plottings required in the fire direction center of a heavy mortar company. Maybe Vasquez wasn't the fastest or the best of computers, but he was reliable. He liked the work, and was commonly accepted as "a good man," a term just becoming current to indicate solid approval.

Within two years after emerging from an expensive Eastern prep school, Collins had thoroughly disturbed

his parents on two occasions. The first summer, while attending Officer Candidate School, he had a spider—just a plain small spider—tattooed on the back of his right hand. Secondly, he had applied for a Regular Army commission and won it the hard way, through competitive tour. It was hard for them to understand why he did either. Collins was athletic, well-read, modeled his off-duty dress after his Wall Street father, and kept his social contacts to a carefully selected few. The spring before Korea he was deliberately and systematically becoming a lover of classical music. Having progressed past Kostelanetz and Boston Pops records, he was in the Grieg-Debussy-Tschaikovsky stage without yet being aware of the error of starting a record on the wrong side.

Vasquez looked two generations removed from Puck translated into Mexican. Round face, bushy crew cut. As I remember, he had told me his first year of high school had been his last. He ran with the smart boys, the slick-hair and sport-coat segment of the company, and seemed to be the personification of carefree, and sometimes careless youth. Out of the bop language of the time he had adopted "Man" and "Dad" as his own, and he used the expletive "Nuts!" to express joy, sorrow, indignation or indifference. "Hey, dad, you gonna put some gas in that car? Come on, man, nuts! Let's get to Seattle!"

Collins and Vasquez enjoyed each other's company. Psychologically, you can explain it any way you choose; militarily, it wasn't to be expected. Soldiers of the bent of Vasquez more often give officers a wide berth and discuss them profanely in private, while officers find more interest within their own small circle. Not this pair. On a field problem Collins would listen with a grin and evident interest as Vasquez would recount the latest escapade in lengthy detail. "Lieutenant, you shoulda been there! Now, dad, there was a sight, with Ferguson's coat tore half off him. Nuts, nuts! what a time!"

Collins would terminate these recitals by offering sympathy, encouragement, advice, or an irrelevant bit of his own thinking.

"Vasquez, my boy [always "Vasquez, my boy"], you will some day learn the high cost of worldly experience."

"Vasquez, my boy, why don't you spend your evenings at the crafts shop, or go to the post library and listen to some good music?"

"Vasquez, my boy, if you expect me to go to bat for you with the company commander after the deal you and your juvenile-delinquents-in-uniform friends pulled in Tacoma last week, you are mad, utterly mad."

"Aw, Lieutenant, nuts. He'll listen to you, dad."

"Damn you, Vasquez, you men are just a bunch of beasts, aren't you? You act like animals and you should be treated like animals."

"Aw nuts, Lieutenant."

OUR company had always been rather tight-knit, or we might even have been termed smug. Within an

infantry regiment we were specialists. We knew our business and we knew one another. We sailed for Korea nine days after we were first alerted. On one of those hectic days Costanza, our prototype of Old Army mess sergeants, nicely summed up the general feeling: "Sir, some of these young soldiers are pretty worried. Us old soldiers, we're scared as hell." Scared, but with a lot of confidence in ourselves and in one another.

Somewhere en route, a few of the garrison formalities were shed. One entire platoon got themselves Comanche haircuts—skin-bald except for an inch-wide stripe from front to back. This amused the company until the regimental commander ordered the stripe cut off—which further amused the company. The company officers placed unauthorized crossed muskets under their bars on the cotton field cap, a widely admired and emulated innovation which we imagined gave us a kind of Confederate jauntiness. And Private First Class Manuel B. Vasquez became—first to Collins and then to the rest of us—just Manny.

I inherited Manny a month after we landed. He and Collins had been running fire direction for a separate platoon displaced into a vulnerable forward position to support a small-scale raid across the Nakdong. When the platoon found itself surrounded and in a small-arms fight with a much larger force crossing the river in the opposite direction, Collins led the men out over an as-the-crow-flies route across the hills. Within sight of safety, he and Manny and four others stopped to join another group who were fighting an independent, private and futile rear-guard action. Manny said later that for close to an hour about ten of them had held a knob controlling the main road. Then the Commies side-slipped across the paddies and they were in the process of being surrounded again when Collins ordered him off the hill and pointed out the route he should take to get back.

"I should have stayed there with him, but that's what he said to do and right then I was mighty glad he said it. I thought he would pull out right behind us. I guess that's what I thought."

That was the last time Collins was seen alive. When the rifle companies recaptured the ground twelve days later, I knew where to look, and his body was where Manny said it would be. No, there weren't lots of dead North Koreans around him. The enemy had had plenty of time to police them up.

The company felt bad. We'd lost half a platoon of men, four guns that had to be destroyed before the platoon pulled out, and we'd lost Collins. "A good man," everyone would say with a shake of the head.

Manny was very much lost. "Shook-up" is the current term that fits. Even by that time, I was one of the two original officers left with the company, and ten days later I was to become company commander. No tribute to me. I just lasted longest.

I HAD been a friend of Collins and we had both been in the company since before Manny joined, so I guess

it was natural that Vasquez accepted me in the same manner I inherited him. When he was free from duty at the FDC he would look me up and talk about Collins and Tacoma and Olympia and the time Yadovic got two rounds in the barrel at once when we were firing service practice and what a soft deal we had in the States. But I knew what he was looking for, so I would grin and begin with, "Manny, my boy," and tell him he was a butterfingernail bum at the plotting board, or that William Faulkner was the greatest American writer and he should read him sometime, or anything else that came to mind that had a Collins touch to it.

Almost always, though, we would finish the same way. Manny would clam up for a while, then ask, "Lieutenant, do you think I should have stayed on that hill with Lieutenant Collins?" Not always in the same words, but always the same question. I would reassure him by pointing out that, after all, he hadn't bugged out on his own; that Collins had ordered him to leave and that's what he should have done. It would hold him until next time.

Manny made corporal and we finally got away from the Nakdong. The place was beginning to work on all of us, because when driving from the river back to regimental headquarters you had to pass too many hills and paddies and villages where friends of several years had been lost. The North Koreans had folded because of the Inchon landings, and for almost a month the only shots we fired in anger killed two cows as a by-product. Next day the FDC truck had two cows stencilled on the hood, Air Force style. A Vasquez project, no doubt. He had resumed calling everybody Dad and Man and used the normal number of Nuts, so I pegged him as getting along fine.

By late October we were in the North Korean capital, Pyongyang, and some of the better sources told us that within two weeks the whole division would load and sail home from Inchon. We got the company moved into a big concrete schoolhouse, eating off tables, stoves in every room, and even started a training program for a few replacements we had gotten in. My promotion to captain came through and there was a festive evening in the room we used for officers' quarters. Most of the noncommissioned officers stopped in and later Manny came by. After the other officers had gone to bed, I was still explaining to Manny why he was the best computer in Korea, and he was assuring me that I was the best company commander in the *en-tire* Army. He volunteered to assist if I would announce police call to the whole company. I regret to say this project was carried through on the room housing the 2d Platoon before it occurred to me that it wasn't very funny in the first place, and a helluva way to run a company in any case.

WELL, we didn't load out at Inchon. On the contrary, by 4 November we were in a new and different war. Instead of fighting North Koreans in the heat of the scrubby, rolling hills of the Pusan perimeter, we were fighting Chinese in the bitter cold of the higher hills

of North Korea. Like getting your arm out of a cast only to be told it has to be rebroken.

During the second week we were active in this new one. Manny asked the first sergeant to see about getting him a transfer to a rifle company. We'd made a few other transfers like this, but ask any infantryman and he'll tell you the relative safety of the two assignments. It was a hole-in-the-head request. A rifleman looks back at a mortar company as a safe haven just as a mortarmen considers regimental headquarters or the artillery a much easier life. I sent for Manny and we went through the whole reassurance process again, except this time I pointed out that experienced computers were a scarce commodity and that for purely selfish reasons, I'd hate to see him go. He said in that case he'd like to think about it some more.

Actually, he didn't have much of a chance to think about it during the next two weeks. We had our hands full pushing north at a slow pace, and we ate our Thanksgiving dinner late one night at a point as far north as we were to go. That dinner started a four-day period in which I had four hours of real sleep, and shouldn't have had that. You can read Marshall's book for the details of how we got south out of it, but even reporting with that much realism can't tell you how it really was. The picture of Manny and the others around the jeep was taken the day before we started through the Pass. It was twenty below when we started moving out of our assembly area at three the next morning. We hit the roadblock at first light, but it had been built up to the extent that we hit it a mile north of where it was reported to be. Right at the beginning, Manny got two small chunks of mortar fragment in his shoulder. By the time we got organized and shooting, you would have thought he had won a prize.

"Hey, dad, dig me! A regular Purple Heart combat soldier! Look at that, man, real USA blood!"

I was eating frozen C-ration peaches when he got to me, and by that time some of the fun had worn off.

"You hear about me? Lookit that!" as he peeled back his parka and shirt.

"Manny, you better be damned glad that's all it is, because right now the nearest evac hospital is somewhere south of that pass."

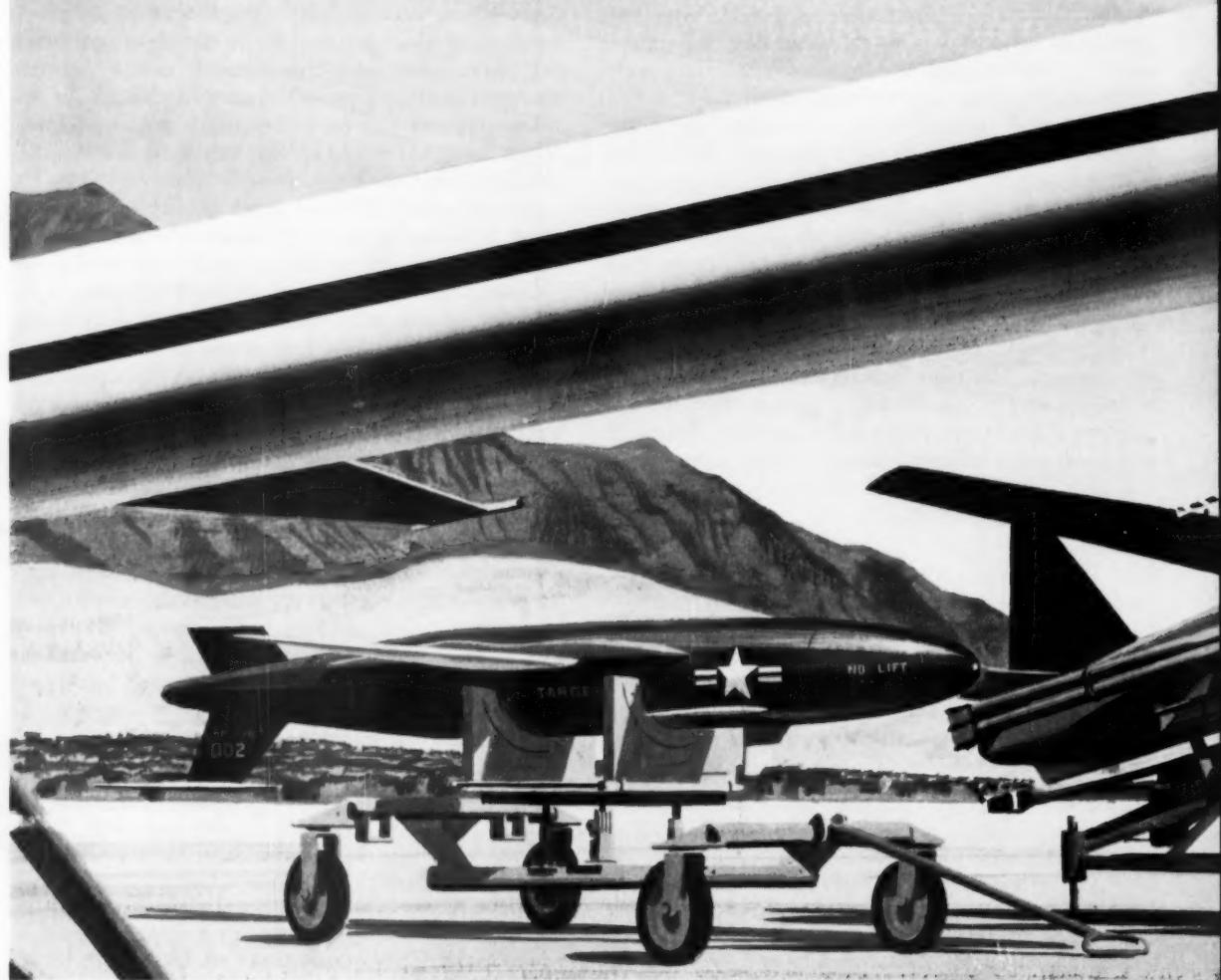
"Well, t'hell with it. Some gook is gonna pay ol' Manny back for this before the day's over. Matter of fact, I have a lot to settle with 'em. I got me a BAR I found yesterday and I know how to use it, too."

"You better spend more time computing and less time showing off that mosquito bite. Get on back to work."

And those were the last words I ever said to him.

The FDC truck was one of several that didn't get through, but that didn't prove much, for men can get out when a vehicle can't. The operations sergeant had been in the FDC truck, for instance, and he made it. But he said Manny hadn't been in the truck when it started on the final run from the top of the Pass down the hill. We kept hoping Manny had tagged onto some other company. It often happened that way.

NEWS IS HAPPENING



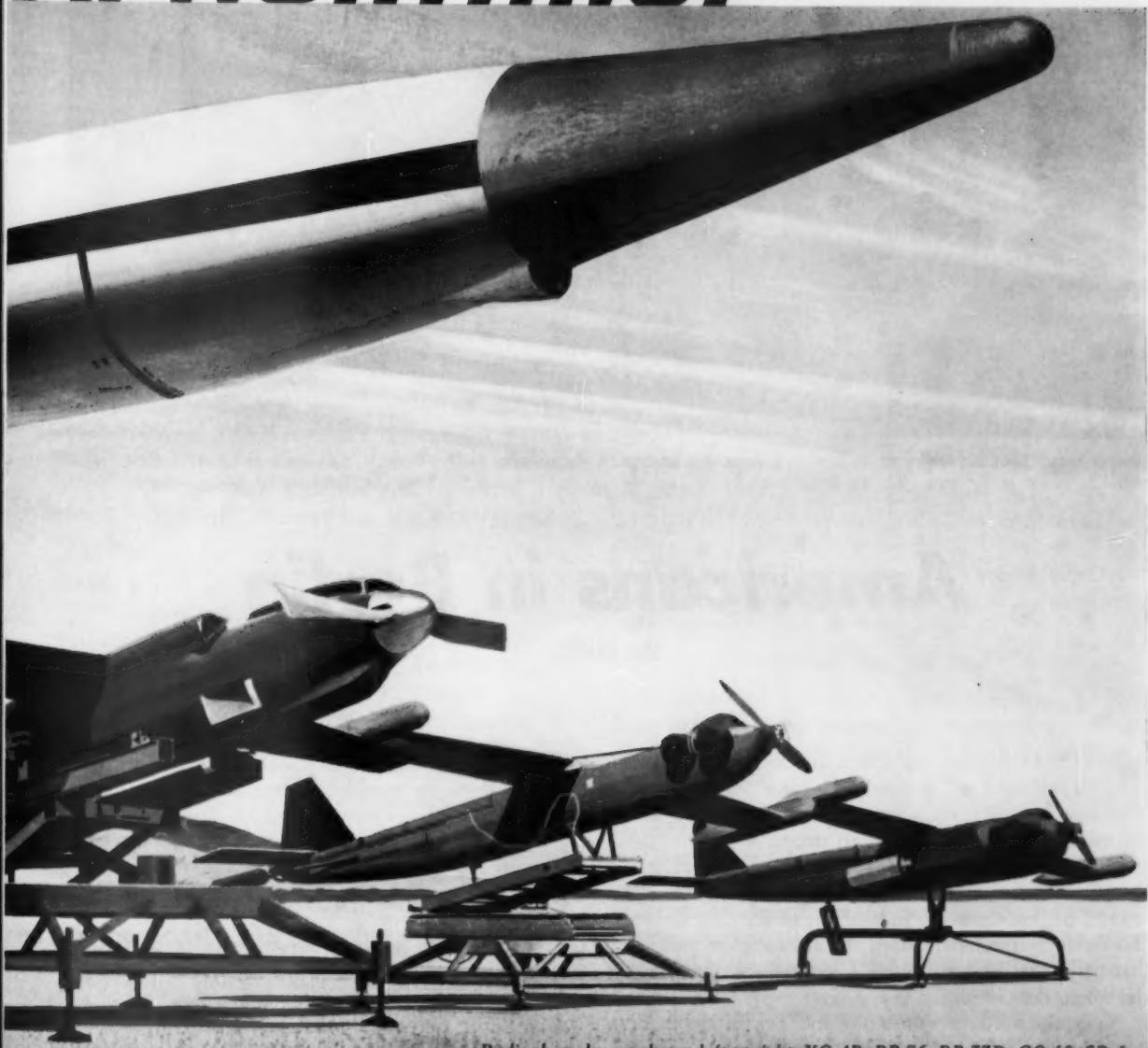
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AT NORTHROP



Radioplane drones shown left to right: XQ-4B; RP-76; RP-77D; OQ-19; SD-1

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General Hamlett briefs Mr. Belding on the division of Berlin. The American sector is marked by the letter "A", the British sector by "B" and the

Russian sector by "R". At the far right are (from left to right) Col. Fred C. Weyand, Col. Nathaniel R. Hoskot and Col. William F. Kieran.

Americans in Berlin

Don Belding

BERLIN

WILHELM Richter, his wife and two children, came up a side road and stopped their car at the boulevard Osteweg in Berlin to await the passing of a long line of trucks loaded with American troops.

Nasty images came to his mind. The days American bombers leveled a square mile in the center of the city. The hundred-odd Russian batteries that shelled Berlin indiscriminately until all ammunition was exhausted. The four-day orgy of looting and rape. The complete destruction of everything.

Two months later American and British troops arrived, and a haven developed in the western sectors of Berlin.

Then the gradual rebuilding. The emergence. The increasing crescendo of a throbbing prosperity. With it a growing feeling of security of life and fortune.

Soon the trucks were clear and a large tow vehicle ended the procession. Richter waited a little before pulling into the Osteweg.

Don Belding, whose home base is southern California, is a tireless traveller who recently returned from a visit to Europe which reached as far eastward as Berlin. Mr. Belding, who retired a few years ago from the Chairmanship of the advertising firm of Foote, Cone and Belding, is the Civilian Aide to the Secretary of the Army from southern California and was until recently a member of the Council of Trustees of AUSA.

"Thank God for the Americans!" he said to his wife. "But for them we would be slaves in our own homes and Paul and Marga would be under daily brainwashing by that vicious *Jugendweihe* the Communists have set up in the eastern sector and east zone."

Thus from a foundation of utter despair and then gradual improvement to the present prosperity, the German populace in the western sector of Berlin appraises the occupation forces of the Western powers and fears the Soviet measures in the east.

Our Berlin Command starts at U. S. Army Europe (USAREUR), which is headed by General Clyde D. Eddleman, former commander of Seventh Army.

General Eddleman drew great praise and admiration this spring when he went into the Eastern Zone to visit the Soviet commander.

Hamlett's Three Hats

Major General Barksdale Hamlett, senior U. S. officer in Berlin, reports to General Eddleman directly for the Berlin Command. But he also wears two other hats.

In company with French, British and Russians, he is one of the four men who represent the forces occupying greater Berlin. This hat rests in the State Department under David Stone, our Ambassador resident in Bonn.

The four powers still cooperate in a few matters. Air control over Berlin. Police control of criminals. Some utilities, such as sewerage. The four powers alternate at guarding war criminals at Spandau prison. Here are confined three whom almost everyone remembers: Rudolf Hess, Hitler's Deputy Führer; Albert Speer, Finance Minister; and Baldur von Schirach, who headed the Hitlerjugend (youth movement).

The second hat rests under NATO and General Norstad.

General Hamlett operates the Berlin Command through a Chief of Staff, Brigadier General Charles S. D'Orsa. When D'Orsa was called to the States recently due to the illness of his father, Colonel Nathaniel R. Hoskot filled the job as Acting Chief of Staff.

Our troops here total approximately 4,000, and are acknowledged to be among the most efficient forces in the Army. They consistently win rifle and pistol matches for both slow and rapid fire. When in maneuver competition in the western zone of Germany, they seldom fail to grab the highest efficiency score.

They are uniquely organized and completely self-supporting, even to the repair of any major or minor vehicle.

Two battle groups

The Command is organized into the 2d and 3d Battle Groups (1,400 men each) of the 6th Infantry. The 2d Battle Group is commanded by Colonel William F. Kieran, the 3d by Colonel Fred C. Weyand.

In addition there is Battery F, 40th Armored Artillery (90mm), the 126th Labor Service Center (900 Germans for local security), the 279th Hospital Group, and special units like the 287th Military Police Company, the 298th Army Band, the 592d Signal Company, the 570th MP for railway guards, the 11th MP detachment for criminal investigation, a service company, a headquarters company, plus signal, ordnance, chemical, engineer, transportation and quartermaster troops.

The battle groups alternate on practically a continuous alert and training is rigorous and thorough.

Fun at the base

Nowhere are our troops better entertained than in the Berlin Command. The Government has taken over the old Telefunken group of buildings and has renovated them into billets and supporting facilities.

The battle groups have divided the trophies of the 6th Infantry, whose lineage goes back to 1812, and now display them in suitable meeting halls and reading rooms.

The libraries are new and complete. There are hobby shops where men can use woodworking and other machinery during off-duty hours.

There is a night club where soldiers can bring their girls for an evening. It is complete with bar (beer and wine) and music, with tables arranged in twos and fours. It runs four nights a week and is well attended.

All areas are arranged for indoor games. There are, of course, all sorts of outdoor sporting activities: baseball, basketball, soccer, golf, football, swimming, sailing. A recreation center is kept at the Wannsee (a lake) where soldiers can get rooms even during a weekend. This recreation center is as good as any American yacht club, better than most. A theater, the Outpost, seats 900. There are chapels for all denominations.

While a soldier need never leave the base to be fully entertained, he is of course free to go to town and does so on occasion. However, during the week Mrs. Belding and I were here we did not see more than six soldiers in the downtown section of western Berlin.

All housekeeping chores such as laundry, pressing, and the like, are done by Germans who charge about seven dollars a month per soldier. The laundry employs 400 German women and many of them have worked here since the first weeks of the U. S. occupation.

The families of the Berlin Command have 790 children in schools, the instructors being mostly Americans on one-year leave from their jobs at home. The tuition charge is \$276 a year.

There are 3,000 dependents here in some 1,400 families. They live in 748 family units; the rest use bachelor quarters.

Messhalls are the best

The commissary, in spite of Berlin's isolation, is the best. Milk, beef and vegetables come from the Low Countries, citrus fruits from the United States. Sun-kist is a common product name here. Of course nothing comes from the eastern zone, although it is largely agricultural.

There is a special bake shop run by Germans that draws high praise from our soldiers.

Menus are basic, plus 10 per cent because of the rigorous training schedules. Each company has its own mess and much has been done to make messhalls really attractive. In the first place, all resemble a restaurant more than they do an ordinary messhall, with tables set for four, never for more than eight. Noncommissioned officers are served at tables by German waiters; the rest of the troops line up as elsewhere.

An example is Company A, 3d Battle Group, whose messhall has been designed in an Arizona motif. Photographs of Arizona highways have been used to give this motif an authentic appearance. Cattle brands line the walls. In the center is a diorama of Monument Valley, beautifully done.

Another dining hall has been lined with drawings of the American soldier in uniform starting from the days of 1812 and ending with the battle dress of the Berlin Command. All dining halls vie with one another for originality and decor.

Bachelor's paradise

While Berlin is a bachelor's paradise, our troops exer-



Lycoming

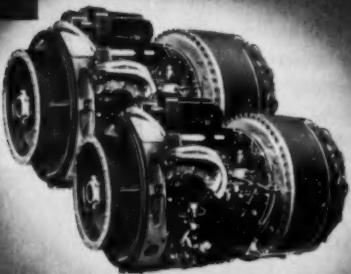
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A Berlin Command Military Police Company entertains and is entertained while distributing gifts to orphans during the 1958 Christmas season

cise much restraint in their activities and take pride in representing the United States at this outpost within the Iron Curtain.

Each Christmas season, for instance, men are cautioned on the impression they might create in the German community because of too much celebration and hilarity. Last year not one case came to court-martial during that season. That speaks well of the responsibility our soldiers feel as they provide the only bulwark for freedom behind the Iron Curtain.

However, incidents do occur, the worst being when some soldier gets on the wrong train and winds up in the eastern zone. It takes about a month to get him back.

Our men are not pollyannas, either. Some time ago a dozen or so were sitting in a pub in the British sector. One of our men, of Indian ancestry, and a Scot got in an argument over a girl. The inevitable fight ensued. The Scots didn't like the way their man was being pummelled, so they joined in. The other Americans didn't like the way the whole thing was going, so they joined in too. You can imagine what the place looked like after a few minutes.

Then all decided they were friends after all, and by the time the MPs arrived everyone was singing and laughing, with friendly arms on friendly shoulders.

"What fight?" was all the MPs could get out of anyone.

Russian soldiers hate it

While there is frequent fraternization among British, French and American troops, there is none among Russian troops and those in the western sector. In fact, Russian soldiers hate the German assignment. They are kept in *Kasernes* and let out only about once a week, and then they must be on an organized walk.

We saw them on one of these walks while touring the eastern zone. A noncommissioned officer went ahead bearing a red flag. About two squads of men walked behind, in route step, four abreast. An officer tagged along, far enough behind so as to be not associated with the troops but close enough so he could keep an eye on them.

Even the families of Russian officers are kept behind high wire fences and must check in and out of a gate when they go to market or for any other reason.

The Russian's tour of service in Germany is three years. Very often when a soldier is about to be sent back to the USSR he will go over the hill for a few hours, looting and ravishing.

Public relations are good

Many things are done to ingratiate the Berlin Command with the Germans. Very often a church or school will need some grading or heavy work done. This provides training for our men as well as creating good public relations for the Command.

But the greatest American-German activities lie in the adoption of orphanages about the sector. The frequent visits to these orphanages, the supplying them with presents, entertainment, and the like, absorb a lot of time of the various units. During the Christmas season this work is especially important.

Another evidence of what the Germans think about the Berlin Command is that its public relations office is never quite able to fill all the requests for Americans to eat and spend time in German homes, particularly at Christmas and New Year's.

Among other activities, the Berlin Command Public Information Office publishes a weekly, *The Observer*, one of the few English-language papers in Berlin.

Berliners have a good sense of humor. The Russians have erected a big statue of Stalin in the business section of the east sector, located on the former site of the Woolworth store. The Germans call it "Mr. Woolworth."

Our Benjamin Franklin Foundation has built an immense but grotesque convention hall in the Tiergarten across from the old Reichstag building. Berliners call this "the Pregnant Oyster."

Near Tempelhof airport, terminus of the famous 1948 airlift, a rather unusual monument has been erected to those who gave their lives in the lift. The Germans call it "the Food Rake."

Amerika Haus

No discussion of Berlin would be complete without something on the activities of the U. S. Information Service.

West and East Berliners are free to travel to either sector. Also, many Germans in the eastern zone hold permits that let them come into Berlin, where they may be exposed to Western influence. To take advantage of this situation, USIS operates Amerika Haus, in the center of the city near the railroad station where most people arrive in West Berlin. Here, every day, at great personal risk, at least 200 East Germans come to look at moving pictures and to read Western newspapers and to get the true facts about what is going on. Last year, 476,079 came to Amerika Haus, another 113,947 to other libraries, a total of 590,000. Among these were 221,797 visitors from East Germany and the eastern sector. Periodicals and releases are furnished the East Germans, and thousands of pieces of material find their way behind the Iron Curtain from this source.

But perhaps the most effective representative of the West is Radio in the American Sector (RIAS), managed by A. A. Klieforth. This station broadcasts 24 hours a day and reaches all of East Germany in spite of 600 jamming stations set up by the Soviets.

The aim of RIAS is twofold: to keep a semblance of hope in the hearts of the East Germans, and to neutralize the Soviet propaganda being fed to children through the East German schools which are now wholly controlled by the Soviets.

The Russians are very methodical in that the same lessons are taught in every city on the same day. Our people know what these lessons are and have copies of the textbooks and teachers' guides. When a child arrives home in the afternoon, special broadcasts are sent out, entertaining in nature, but which give the true facts on one point which was falsified by the Soviets on that day. This creates doubt in the child's mind and is a tremendous thorn in the side of the Russians.

It is largely RIAS they mean at Geneva when they talk about our propaganda activities in Berlin.

Control through norms

Another matter worth mentioning is how the Soviets keep the people under control in their zone. It's done with norms. Suppose a man is a laborer with two children. He is given a norm so high he cannot possibly make it. So he gets less food, poorer housing. Then he is told that if he permits his children to join the *Jugendweihe* (the children's brainwashing organization) he will be given a realistic norm. If he allows his children to join, his eating and housing problems are over. If he refuses, his life is made unbearable and very often he flees to the west.

Farmers are regimented through an organization known as MTS (Machine Tractor Station) which controls the mechanical equipment and the seed. If a farmer wants to plow he must go to the MTS. If he needs seed he must go there too.

Doctors are not allowed to travel outside the country to attend conventions and other gatherings where they can better themselves professionally and learn the latest in medicine and surgical techniques. So it is no wonder that during last year alone, 1,000 doctors, 3,000 elementary school teachers, 300 university professors, and hundreds of farmers fled to the West.

Barksdale Hamlett is perhaps the most social general officer in the Army, simply because he *has* to be. He and Mrs. Hamlett must go to Russian, British and French functions, entertain in turn, and are constantly confronted with American VIPs who want to see "what's going on in Berlin."

After briefing a group of 50 Americans attending the Conference of Local Authorities in Berlin last June, someone asked him, "Isn't there a lot of spy work going on here?"

Hamlett answered quickly, "Berlin is the most concentrated center of espionage in the world today."

But that is another story.

Our Greatest Challenge

Major MURRAY W. WILLIAMS

ON 16 December 1958, General Bruce C. Clarke, CONARC commander, startled students at Fort Leavenworth by saying that the time for individual training may be reduced from 16 to 14 weeks. He said he foresaw a possible further reduction to 12, and hopes ultimately to cut training time by 40 to 50 per cent. The need is urgent, he said, for faster, better training.

To aid the effort toward faster, better training, we need to review the problem of training a nuclear-age infantry division from arrival of cadre to shipment overseas. Nearly every officer can expect to be involved in conducting such training. Indeed, we must be mindful that this welding of individual soldiers into capable, confident, responsive units is today's greatest challenge.

During 18 months in the 3d Infantry Division as battalion and battle-group S3, I had an opportunity to observe training of the last infantry division to be "Gyroscooped." I would like to share what I learned during the most interesting portion of that experience and discuss the part most likely to be encountered by others during peacetime (with a Gyroscope unit) or in war (with a newly activated unit), from arrival of cadre to shipment overseas.

I propose to examine a typical problem encountered in training a nuclear-age infantry division under a greatly shortened program. This examination will lead to the identification of certain governing factors which we found applicable to other training problems such as organization, administrative obstacles, and standards. I hope my review helps battle group and division officers to better identify, analyze, and solve their own training problems.

When I heard General Clarke's statement, I realized our division's experience in telescoping the Army Training Program's 29 weeks into 18 (almost a 40 per cent reduction) had been but a preview of future training.

The significance of the reduction can be fully realized only if one recalls that during World War II, when it was found that the average infantry replacement after 14 weeks of individual training was poorly prepared for combat, training time was lengthened to 17 weeks.

There are two significant differences between today's training and that of World War II: our soldiers and units must be trained for both the nuclear and the nuclear-free battlefield; and we have less time in which to do the job.

Surprisingly, the effects of these differences create no new principles. However, they forced us to scrutinize

Major Murray W. Williams, *Infantry*, a 1949 graduate of West Point, was S3 of the 1st Battle Group, 7th Infantry (Cottonbalers), as it was recently built for Gyroscope to Europe. He was a platoon leader and company commander in the 23d Infantry in Korea, and is a Ranger and Senior Parachutist. After completing the Leavenworth course he begins civil schooling in international relations.

closer certain well-established principles and to accentuate certain old difficulties.

Our close scrutiny resulted in marked improvements in methods of conducting certain training. For example, individual rifle marksmanship has been improved by Trainfire I, and small-unit tactics by battle drill.

Cadre training is typical of the old problems that have been accentuated. After defining terms and methods I'll examine that training closely, for it offers an excellent opportunity to illustrate some of the lessons we learned about training a division.

The terms *replacements* and *fillers* often are confused. When I say *replacements* I shall mean those recruits who will be reassigned as *individual* replacements after basic training. Our mission, just prior to designation for Gyroscope (as is still often the mission of Gyroscope battle groups) was to train recruits for replacements. *Fillers* will mean those recruits who will be trained and retained by the *unit*.

Phasing cadre training

I shall now discuss how cadre training should be phased and the subjects it should include.

Although Gyroscope requires that the Regular Army component (or minimum cadre) of a battle group be 29 per cent of authorized strength, only about half that number were on hand before the fillers arrived. Most of that half had had some replacement training by the division before it began readying for Gyroscope. Non-Gyroscope men were retained to help make up the difference until fillers arrived. Therefore, if our pre-cycle cadre training concentrates on other than preparing for individual training, we waste time.

We had almost three weeks from the end of replacement training to arrival of fillers. There were other contenders for cadre time during this period: preparation and rehearsal of initial instruction for fillers; preparation of barracks, equipment, and administration; annual individual qualification in arms. As a guide, the new rifle company ATP provides 98 hours of general subjects and methods of instruction theory, and prescribes that additional time be used for student presentations. Each cadreman must be impressed with the fact that a shortened program leaves no time to waste while waiting in lines for records check, rifle-grenade firing, or weapons transition firing, and the like.

During replacement training, the average cadreman displayed a lack of detailed knowledge of subjects taught during basic combat training and advanced individual training—for example, in rifle, automatic rifle, machine gun, and bayonet. On the range he had shown a tendency to make stern but vague comments ("get 'em in the bull") to his group if he lacked detailed knowledge on how to make helpful corrections. He understood the importance of teaching by doing and integrating, but often he "lectured away" such golden opportunities as in arming mines, clearing minefields, applying tourniquets, and firing rifle grenades. He impressed, but he did not always teach. Training tests in

these subjects confirmed the weakness. Department of the Army subject schedules were so obsolete in time allocations, references, or training aids that for the shortened program they were of little help to the instructor.

Morale, attitude, esprit

Since an avowed purpose of Operation Gyroscope is to improve morale, it would hardly be consistent to add night classes for the cadre to frequent demands for night work in replacement training just completed and sure to come in filler training. The more materialistic, self-centered outlook of young men today is an important consideration in training. And since the key to developing esprit and responsiveness in fillers is to develop them first in the cadre, the development of esprit and responsiveness in the cadre must be a governing factor in cadre training.

Because this development of attitude becomes truly the governing factor in the solution of many other training problems, we must thoroughly understand it. "We must teach our soldiers . . . strict observance of regulations," keynoted Trotsky as he inaugurated the training of the Red Army. However, the problem goes deeper than regulations. Most of us recognize a distinguishing quality among recent graduates of "exacting" disciplinary systems at military academies and at OCS and ranger and parachutist schools.

What many of us do not realize, however, is that this distinguishing characteristic is actually a determination to comply precisely with instruction. It is an attitude that manifests itself in the habit of doing things correctly. It is developed by insuring that nothing less than accuracy will be accepted during the impressionable initial training period. Without developing it, instruction—in firing weapons and decontaminating foxholes, for example—will be less than effective, and subsequent performance suffers accordingly. When a soldier does not know his own weapon and learns that his buddies cannot perform their jobs, his leader must forget ivory-tower thoughts of esprit. For in such men there is not even confidence.

Solution that worked

Instead of conducting cadre training in two phases, we did it in three: *pre-pre-cycle*, *pre-cycle*, and *in-cycle*. In addition to the conventional *pre-cycle* phase for instructor-type training, and the *in-cycle* phase for actual job-type training, we considered our previous mission—replacement training, by *unit* (not committee)—an important cadre training phase. It vastly broadened cadre knowledge and leadership by the best possible method—by doing. The formal *pre-cycle* phase of cadre training generally was conducted in five-hour blocks during mornings throughout the three weeks. The *in-cycle* phase generally was handled during the last two hours of at least one afternoon a week throughout the 18 weeks of individual and unit training.

Except for methods of instruction and a few others,

the subjects included in the formal pre-cycle cadre training were not the same as those in the recently published ATP. We found it paid to include shortened courses on very basic subjects which the cadre would soon teach their own men. Some companies had been conducting replacement training for basics; others, for advanced infantrymen. We stressed demonstrating the use of available aids, on showing specific methods of including application in particular subjects, and in sharing lessons learned during previous cycles.

Up-to-date, detailed subject schedules were prepared by division or battle group with specific guidance on application and integration. Pertinent parts of these subject schedules were presented to the entire cadre. To help preclude impressive but uninstructive lectures, instructors in one battle group were taught the use of "teaching points." They were required to write into their own lesson plans, in three or four sentences, exactly what the recruit should be able to say or do after the class. In other words, teaching points had to appear as part of their lesson plans.

Annual qualification in arms was integrated as a grand application stage to weapons instruction of this pre-cycle phase.

Sense of Identification

A program to develop a real sense of identification was begun. Starting in this pre-cycle phase of cadre training, it included classes and ceremonies. Thus the stage was set for what was to follow: histories of regiments and the division would be stressed by welcoming talks and brochures, conferences, displays, Organization Day celebrations, monument and field dedications, naming of buildings and streets for heroes of the division, and through division and battle-group newspapers. Even during pre-cycle cadre training, battle-group reviews were held regularly with streamer-decked regimental colors always prominently displayed. Awards systems were announced which included recognition of prominent persons, but with tangible prizes going to conspicuous units. Thus began our work on recognition.

Exemplary appearance, an attitude of precise compliance with instructions, and habitual insistence on strict conformity were developed through meticulous inspections and dismounted drill during the first period each morning. Insistence on sharp uniforms, exact dimensions for rolled ponchos, and perfect adjustments of suspenders served as an effective medium for teaching the meaning of strict compliance.

For the application of and examination in physical and tactical training, we held a gruelling 36-hour ranger-type problem. This helicopter-borne exercise in combat patrol climaxed the pre-cycle training.

Subjects for the in-cycle phase included training in tactics, communications, armored personnel carrier mobile task forces, and helicopter-borne operations. The tactics classes stressed battle drill through demonstrations, and terrain appreciation through tactical walks.

Communications classes stressed radio voice procedure, operation of equipment, and security codes.

Communications training was also integrated by operating battle-group radio nets throughout each training day and throughout CPXs. Instruction in both APC mobile task forces and helicopter-borne operations stressed SOPs for fast loading and unloading and for control.

Welding soldiers into units

Although training is now haunted by the specter of nuclear warfare and complicated by reduced training time, the fundamentals are as old as warfare.

Cadre training is a typical problem. How should it be phased, and what subjects should it include?

When the moment arrives for a commander to solve any training problem, he knows that thousands of factors may bear on his problem; to make quick, sound decisions he must quickly identify and weigh certain of those factors.

These are the governing factors applied in cadre training and other key training problems by commanders who led the 3d Infantry Division to Europe:

AVAILABILITY. Many of the Gyroscoping cadre did not arrive until pre-cycle training was concluded.

TIME. Under a shortened training program, it is more imperative than ever that we avoid waiting lines—whether for records checks, rifle-grenade firing, or weapons transition firing. Detailed subject schedules help. But the cadre must be impressed by example during cadre training, with the *why* and *how* of using such concurrent training opportunities.

KNOWLEDGE LEVEL. The average cadre instructor does his best teaching only when supported by an up-to-date, detailed subject schedule, and when he is required to write into his lesson plan his "teaching points." The detailed subject schedule must stress exactly what training can be integrated and how, and the cadre must be taught to use these subject schedules and teaching points.

MORALE, ATTITUDE, ESPRIT. Whenever possible, the limited off-duty time of the cadre must be respected. Official requirements, such as cadre school, must be scheduled during duty hours. The initial emphasis in cadre and individual training must be on developing the attitude of precise compliance with instructions. Without the resulting habit of doing things correctly, the soldier's subsequent learning and performance will be poor. In the hearts of men who have not learned and whose team consequently cannot perform, esprit cannot be instilled, and confidence dies.

With true confidence and a real sense of identification, a unit's esprit will grow as a living monument to its leaders. More important, such esprit will, better than any weapon or tactic, insure success on the nuclear battlefield. Indeed, we do well to remind ourselves in this hurried, nuclear age that the welding of individual soldiers into capable, confident, responsive units with esprit is our greatest challenge.



tend

Sergeant First Class DAVID L. STANLEY

THE attainment of good community relations by a military unit doesn't involve the hocus-pocus of Carnival magic or Madison Avenue "imagery." "Community relations" is merely being a good neighbor.

The proof of this lies in the experiences of the U. S. Army Air Defense Command's Nike sites. Most of some 240 of these are close to communities. Some are within the limits of the vital centers they protect. Others, like those in the Los Angeles area, are close to small rural communities many miles from target center.

It's as though the Army had re-created the small outposts of Western frontier days. Unlike the outfits of

that period, however, these missile units—manned by skilled technicians in a highly mobile and communicative age—are thrown into the freeway traffic and shopping rush of major target areas. These soldiers, besides performing their air-defense roles, must learn to be good neighbors.

Rarely have Army units of such size had to deal directly with the public in so many varying moods, localities and environments. Besides commanding a tactical unit defending his country against hostile air attack, the CO must also be a diplomat if he is to succeed in his mission. (Air Defense Command units are not the only ones which share this type of relationship with communities. Similar activities include recruiting stations, elements of Corps of Engineers districts, and small posts. For our purposes, however, the Nike site provides an ideal example.)

We are told that community relations is a command

Sergeant First Class David L. Stanley enlisted in 1950 and served in Korea with the 19th Infantry's I&R Platoon. From 1956 he was information supervisor of the 47th Artillery Brigade and since July 1958 has been in the same post at Headquarters 6th Region, USARADCOM, at Fort Baker, Calif.

your fences

As wise farmers have long known, "poor fences make poor neighbors"—so poor community relations are an indication of the absence of good neighborliness



Some of the most effective ARADCOM community programs are with women and children. At left crippled children from a Chicago camp have an outing at a nearby Nike Ajax missile site, and below Little League teams at Fort Niagara, N. Y. use the diamond at a local missile site for their games. Above, Mrs. Gerald Whitaker, National Defense chairman of the General Federation of Women's Clubs, is briefed on the Nike Hercules missile by MSgt Frank G. Enos when she visited the missile site at Fort Barry, Calif.



function. But such a function is usually new, different and mysterious to the young commander. His problems already include keeping his unit constantly trained, supplied, alert, and keenly aware of its mission. In addition to crew drills that are designed to keep his unit proficient, the commander meets civic leaders, property owners, educators, parents and the many community groups which express interest (sometimes hostile) in his Nike site.

Build on a local tie-in

True, the commander has some assistance. Various programs have been instituted by commanders after public information (more properly, public affairs) officers have illustrated how the scheme can assist them. These include regularly scheduled "open house day" at Nike sites near communities, giving the commander an opportunity to explain what Nike is and what it can do; multicolored, distinctive directional road signs picturing Nike Ajax or Nike Hercules and indicating open-house hours; naming Nike sites to identify them closely with the community or a geographical feature well known in the area—for instance, Vashon Battery Nike Site on Vashon Island in Puget Sound in the defenses of Seattle.

Each of these aims at giving the Nike site a "personality" in its own community.

If you ask a taxi driver about a particular unit and he replies, "Well, there isn't much to tell you about that outfit," you realize that the unit has no personality. This is not much better than a completely unfavorable reaction. Without some local tie-in upon which to establish community relations, no program can succeed. This is just as true for a Nike site as it is for the Main Street Drug Store.

Fortunately, besides those I have mentioned, there are other means and they are being utilized by local commanders. In addition, the unique function of a Nike base provides a certain degree of distinction.

First of all, the commander must realize that good community relations start with *him*. There is no substitute for the commanding officer's active participation in local affairs. Without his participation, the program will be artificial, insincere at best. Because the Nike site commander, like his men, must live on or quite near the base, community relations are simplified if the boss is always available when needed.

Down to the newest private

Before starting off on any neighbor relations program, the community must be thoroughly studied and understood, not only by the commander, but by every soldier down to the newest private. (One unit even goes so far as to hand an eight-page mimeographed brochure to each soldier when he reports, which includes street maps and civic information.)

If, for example, a community is proud of its youth program, the commander should learn all the details. His unit's community relations could well be based

upon sponsorship of youth activities. His unit might sponsor Little League baseball, Boy Scout activities, overnight camps on the Nike site itself, or missile or rocket clubs (a natural for Nike outfits). If the city is more interested in a program of beautification and sanitation, the youth activities may be welcomed. But they would not result in the enthusiastic response that might accompany the site's self-beautification program in conjunction with garden clubs, or a neighborhood anti-litter campaign in which Army personnel actively assist, or the unit's active help in a mosquito-eradication program. It's the commander's job to keep track of the community's week-to-week, year-to-year attitude, and he must adjust his program accordingly.

To accomplish this, anyone setting out to create a program for an Army base in a particular community should begin by identifying all the group interests in which his unit and the community share. He must then determine with which he wants to establish relations. By charting this into categories, it is amazingly simple to come up with sound answers upon which to base an initial plan of action. For instance, chart those men in the unit whose children are in grammar school. They may be interested in attending Parent-Teacher Association meetings. The single and sports-minded missleman isn't going to have the same enthusiasm for PTA, but he might be just the man to work with the Communityville Little League as coach, or bowl on the battery's team in the town's league.

The CO must know which key officials of the community have influence or jobs which most affect the daily affairs of his site. Which organizations conduct the business and economic affairs of Communityville? Where are they? Who runs them? What community problems concern them? Who from your unit is most interested and can best help in each of the programs listed on the chart? Simple? Certainly—when you're organized.

Have the common touch

Obviously the unit commander cannot participate in all, or even most, community functions. Therefore it is essential that some person in the outfit be designated the community affairs officer. He need not be a specialist. Specialists in public relations who can offer positive and expert assistance are found in group, brigade and region headquarters of ARADCOM. But the public affairs officers for the Communityville Battery Nike Site should have the common touch and be able to present problems when they arise (and they will!) to the battery commander at any time. The community affairs man must have the time and assistance to do his job when he is not essentially and immediately needed to perform his tactical duties. In addition, every capable man in the unit must be able to assist the community affairs man when he needs help.

Right here is the place to point out that a limited community relations program, if well handled, can be

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The missile:

... *Nike Zeus* is being developed by Douglas under a Western Electric-Bell Telephone program. System will include electronic detection gear to pick up enemy ICBM's at extreme range and then guide *Zeus* out to destroy them. Vital statistics: CLASSIFIED.

The mission:

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immensely productive. Tactical needs preclude an all-inclusive program, but one run haphazardly returns only haphazard results—if it produces any. A good job of organizing even a limited program is, therefore, imperative to success.

Besides open house, directional signs, community identification and participation in local affairs, there are other devices that can lead to success. The open house, complemented by the road-sign and identification efforts, is a good foundation. (One thing to bear in mind, regarding open house, is that technicians—without special instruction in briefing visitors—often make the poorest guides. Their explanations get too technical and go over the heads of the uninformed visitor. Usually the man who has a general knowledge of goings-on will do a better job and will be more easily understood by the visitor.)

To be good, community relations must be understood by every soldier in the command. No matter how much planning goes into the program, it will not be a complete success unless Private Joe Blow is sold on his job and his unit. His attitude during open house, if sullen, resentful and dismal, can so detract from the tour as to shatter any hope of success.

Troop information, plus the morale services provided by crafts, athletics, and the like, can engender in the soldier a certain degree of pride in his unit. If his attitude is one of loyalty to unit and pride in his job—which means better workmanship, higher performance and less accident absences—and one of good relations with his superiors, Private Joe Blow is certainly going to assist, rather than hinder, Operation Good Neighbor.

Word-of-mouth reputation

A good word-of-mouth home community reputation is invaluable insurance against bad breaks like accidents on or off site which involve soldiers and which may interest local citizens. The establishment of a strong and favorable word-of-mouth program is indeed a desirable aim of any commander.

Here's how the 6th Region of ARADCOM, out on the Pacific Coast, is taking the additional step toward assisting Nike sites by gaining a community "personality." In conjunction with the General Federation of Women's Clubs, 6th Region promotes activities that create a word-of-mouth campaign about its Nike bases. Its program began in 1957, when the GFWC reor-

Members of an air defense outfit near Oakland, Pa., toast Mrs. William Heineman for her 15 years of service to the local Red Cross Blood Center.



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ganized its Civil Defense Committee as a National Defense Committee with Mrs. Gerald Whitaker of Berkeley, California, as chairman. At that time Mrs. Whitaker asked Maj. Gen. Edward J. McGaw, CG of 6th Region, by what means the Federation could assist the Army.

General McGaw replied that because of its unique community structure, ARADCOM could be particularly assisted by local women's groups. In or near every community that has a Nike installation there is a women's organization. Many of these clubs belong to the General Federation.

Carefully planning each move, 6th Region and the Federation determined that initially, comprehensive information pertaining to the mission of ARADCOM must be presented to the community's womenfolk. This information included data about living conditions, recreational facilities, methods of supply, the structure of USARADCOM, and answers to any other questions they might ask.

In September 1958 at San Francisco, and in February 1959 at Los Angeles, the first two meetings took place between representatives of 6th Region and the state, district and club presidents of the California Federation of Women's Clubs. Mrs. Whitaker provided the national point of view for the General Federation of Women's Clubs. The effect of these two meetings already is becoming apparent through greater interest in the sites by the community women's organizations. Additional meetings are being planned for the Pacific Northwest.

Each battery commander (the driving force behind successful community relations) and, when possible, his wife, attended the meeting held in his defense area. As the briefings concluded and tea was served, the ladies approached the commander of the base nearest them. Thus began a firm start toward establishing

word-of-mouth campaigns, favorable results showing up right on the spot.

A number of branch programs developed. In one community the homey touches often otherwise impossible at a Nike base are being supplied by the women-folk. Other clubs have "adopted" the men who live off-site with their families. The clubwomen introduce young couples to the complexities of a new neighborhood—where to find the best dentist, the nearest druggist, a place to live, where to shop. As good neighbors, these women are proving wonderful friends.

Intangibles are most important

However, these tangible results are only secondary in nature. What is more important is the intangible, long-range result. By continuously speaking favorably about the *Army* Nike men, providing the site with a personality, these women generate good will. That kind of good will will carry over in spite of a little bad luck once in a while.

What does it cost the CO to be a good neighbor?

A topnotch commander can quickly tell you how many hours it will take to train his men, or to keep his outfit constantly in top shape. But the person hasn't been born, nor the electronic brain invented, that can determine how much time must be spent in order to obtain sound and successful community relations.

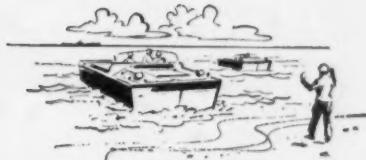
Programs developed for commanders by public information (public affairs) officers give the CO a running start at carrying out strong community relations: they identify his site, giving it a personality. But the degree of good neighborliness achieved by his efforts—the only accurate yardstick of success—is up to the responsible and energetic commander (*the* community affairs boss) and the informed men assigned to his site, living as good neighbors *within*—not merely near—the community.

More than 25,000 persons saw the Army's Nike Hercules roll through the streets of Seattle during a parade





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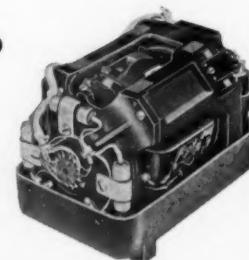
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Balanced Support for Fighters

The Quartermaster Corps is testing a new organization designed to provide faster and better services to the field army

Lieutenant Colonel WALTER L. SPAULDING

SOMETIMES a soldier just never knows what outfit he belongs to. To a nondivisional quartermaster soldier, "What outfit ya from?" has no answer which he feels the hailer will readily comprehend.

It was true in World War II and in Korea. It still is. Fortunately, something is being done about it. The provisional 243d Quartermaster Company (Direct Support) was formed at Fort Lee late last year. It has undergone successful tests at nearby Camp Pickett, and can support division-size forces. The general idea is to afford fighting units "balanced" quartermaster support, all from one command source. This is in line with the concept of revamping the field army to meet the demands of nuclear conflict. It also provides a "home" for those who don't belong.

During the Korea action, a quartermaster soldier in a nondivisional outfit kept pumping Mogas, even as the "incoming" splashed rice-paddy goo and caused palpitations for the purity of his

merchandise. His other worry was that he belonged to no identifiable unit. (Long before "togetherness" belonging was the essence of soldiering.)

"This Mogas is doggone important stuff," he once told his chief. "Guess we're helpin' shove them Commies back over the thirty-eighth, just keepin' our prime-movers rollin'. But, Sarge, what in hell outfit do we belong to, anyway? Yeah, this is the Umpteenth QM Petroleum Supply Company—or a piece of it. Here's our platoon—only QMs around, except for some ration guys and grave diggers down the road. Now look at them dogfaces. They're Indian Heads, and cocky as hell!" (This quartermaster soldier didn't know his first sergeant at that moment was suffering morning-report blues. His three petroleum supply platoons were spread across the corps' area, with headquarters somewhere between.

There are 14 "type" nondivisional quartermaster company-sized units available to an army commander. They are designed for fragmentation, by platoons, by sections. They seldom operate as entities. Each is specialized, representative of a quartermaster supply or service function. Fragmentation, a built-in feature, allows tailoring for logistical support at any specific time or place, and in any circumstance. A worthy concept. Yet something is lacking. The quartermaster soldier expressed that shortcoming: not partaking in a common esprit. Morale of orphans!

Needed: a new support concept

There's more. Fast and accurate logistical planning is essential. Consider a task force commander examining his troop list. He must select fragments of divers quartermaster companies that are indispensable. Eventually, having consulted tables and gotten the Quar-

termaster's counsel, G3 sequesters the requisite quartermaster fragments. Result: a potpourri, with no single on-the-scene leader to direct multipurpose QM operations. This commander's request is reminiscent of the opulent lad with 15 cents to invest. "Gimme a penny's worth of those, one of them, two pennies' of that there."

We need a new support concept—that of "balance." In other words, the creation of multipurpose quartermaster companies and battalions that can operate as entities. Such balance will simplify and improve nondivisional quartermaster contributions in the army area, as well as in the theater administrative zone (formerly ComZ). Working on this principle, new TOE are being devised. Based on one proposed table, the 243d was activated provisionally, to give the concept substance. This unit is the original synthesis of a variety of functions performed by quartermasters in the combat zone (Figure 1).

In essence, whether his troops need to be fed, fueled, clothed, equipped, bathed or buried, "balanced support" should enable the combat leader to deal with one quartermaster support commander. To make this possible, QM planners would like to swap the 14 "types" of companies operating in the army area for just four. These four would operate two battalions: a direct support battalion and a general support battalion. Tentatively, a quartermaster group headquarters is also planned. From this we derive a new concept, "direct support-general support" (DS/GS). Not included in the swap, the quartermaster sales company (one per field army) provides PX services when troops cannot get to regular exchanges or free issues are not authorized. Free issues usually are made through established channels.

Lieutenant Colonel Walter L. Spaulding, Quartermaster Corps, was commissioned in the Infantry Reserve in 1936. During World War II he was a battalion supply officer, company commander, and battalion executive in England, North Africa, Italy and France, and served later at Delta Base Section in southern France. Integrated into the Regular Army in 1946, he commanded a QM battalion in Korea and was adviser to the Commandant of the ROK's Command and General Staff College. He is now Assistant Director of Instruction for Organization and Doctrine Development at The Quartermaster School.

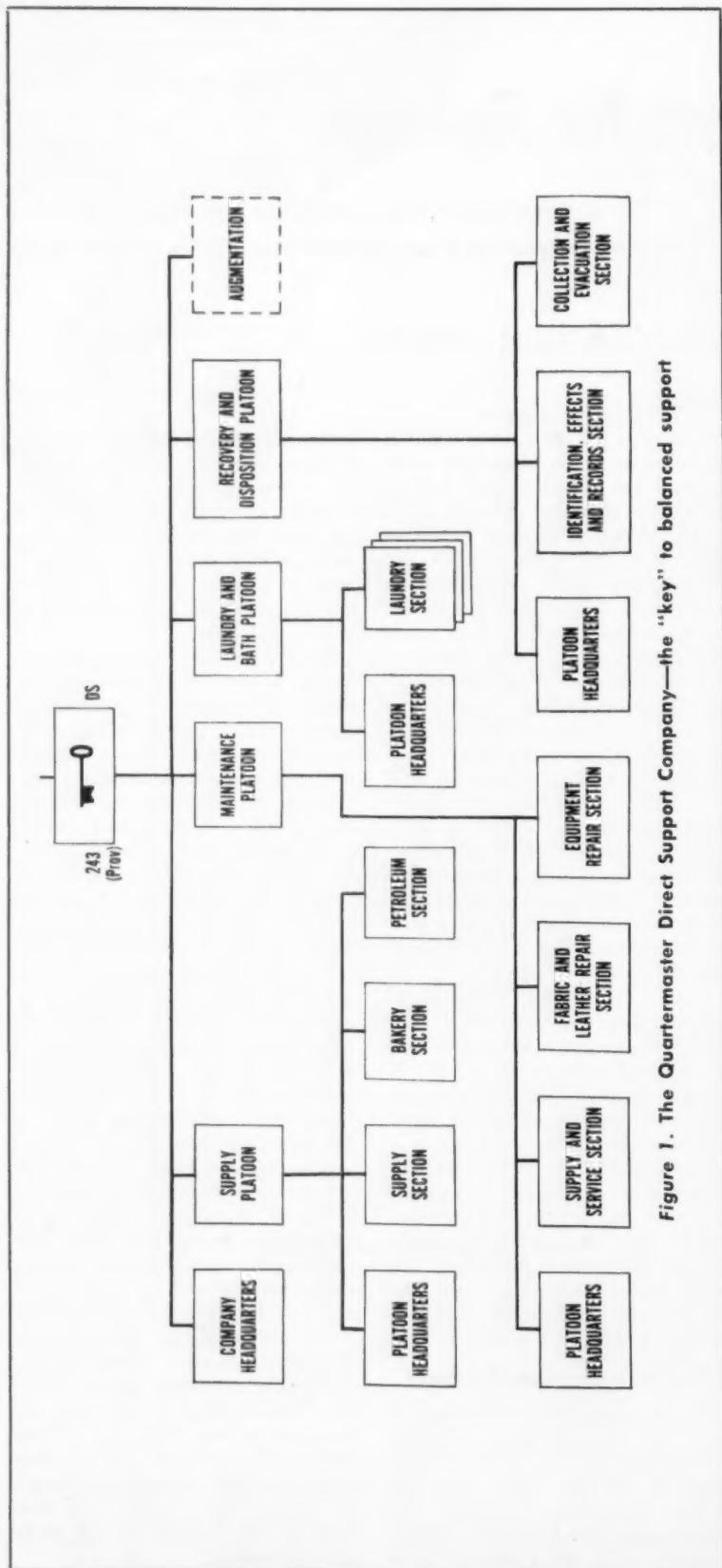


Figure 1. The Quartermaster Direct Support Company—the “key” to balanced support

In a theater of operations, effort is directed toward complete quartermaster support as close as possible to combat elements. Tactical considerations of mobility and dispersion preclude concentration of support near the user. Mobility and dispersion necessitate, instead, "echelonment" of support at three levels: direct, general, and depot.

Planning factors in the DS/GS concept start with the company, the basic unit that is operationally and administratively self-contained. Companies became the building blocks of the concept, as opposed to fragments.

The DS battalion

In planning the direct-support echelon, the DS battalion was designed to support approximately 32,000 men—a planning figure for a combat-zone portion of a division slice. This slice is the total of a division's organic troops, plus those army administrative and support elements necessary to sustain that division in combat. At the general-support echelon, the GS battalion was designed to support approximately 130,000 men—a planning figure for a combat-zone portion of a corps slice. By using the slice as a planning factor, the "area support" concept was introduced. Present QM companies are designed primarily to support a given number of troops; the extent of the supported area is largely incidental.

Under DS/GS, operational concepts planned for units equally emphasize population (meaning both men and their equipment) and area. The DS battalion is the point of contact between the supported division and the quartermaster system. This battalion has two identical direct support companies. Its mission is to provide a single source for quartermaster supply, field maintenance, and services; increased operational control and flexibility; improved administration and communications support for quartermaster units; optimum dispersion of quartermaster logistical installations; rapid supply action instead of large inventories; and simplified planning and technical training. The proposed GS battalion gives DS units back-up support, and is composed of a field depot company, a field maintenance and service company, and three service (labor) companies.

What the customer gets

What does the combat customer get? The DS battalion, using its two DS companies, sets up and operates supply

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points for class I (food), quartermaster class II and IV (clothing and general supplies), and class III (POL). It provides field-maintenance support for QM equipment, and supplies spare parts. It collects and disposes of salvage. The battalion furnishes laundry, clothing exchange, and bath services. It maintains clothing stocks to hedge against contamination. Recovery and disposition of remains (formerly graves registration service) is included.

Seen through combat eyes, the principal virtue of this concept is that the support organization has one boss. Shopping for a conglomerate of quartermaster goods and services is minimized. The basis of employment in battle zones is support to combat and combat-support elements of a division in the division area and the supporting troops in corps and army areas.

On an area basis (without the objectionable fragmentation) the DS company, or building block, gives multipurpose support to approximately 16,000 men. Two such companies compose a DS battalion. Four DS battalions, therefore, can support a combat zone corps slice. Add to this the back-up support by a GS battalion, usually allotted one to each corps. According to one provisional plan, these five elements would be attached to the headquarters and headquarters detachment of a quartermaster group (Figure 2). From this "balanced support" package, the corps commander unwraps responsive QM units that can rock or roll with combat elements.

The DS company

Each DS company can operate independently. For example, in combat zones it is intended that one be employed in close support of a division, possibly forward of the division's rear boundary. The company's structure illustrates its "balance"—the synthesis of functions. It combines the functions of several "type" quartermaster companies, and is completely mobile.

The DS company has a headquarters, a supply platoon, a maintenance platoon, a laundry and bath platoon, and a recovery and disposition platoon. The sections of each platoon are shown in Figure 1.

Supported units receive subsistence, clothing, QM equipment, and POL from the supply platoon. Its supply section operates class I and quartermaster class II and IV supply points. However, it cannot deliver supplies to units with

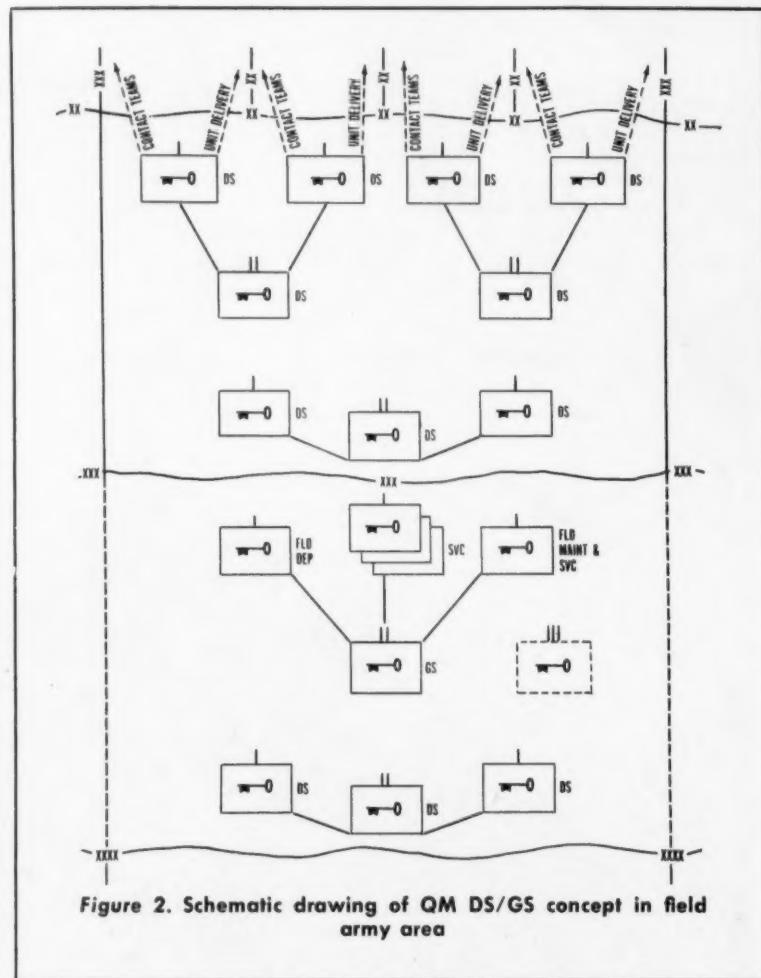


Figure 2. Schematic drawing of QM DS/GS concept in field army area

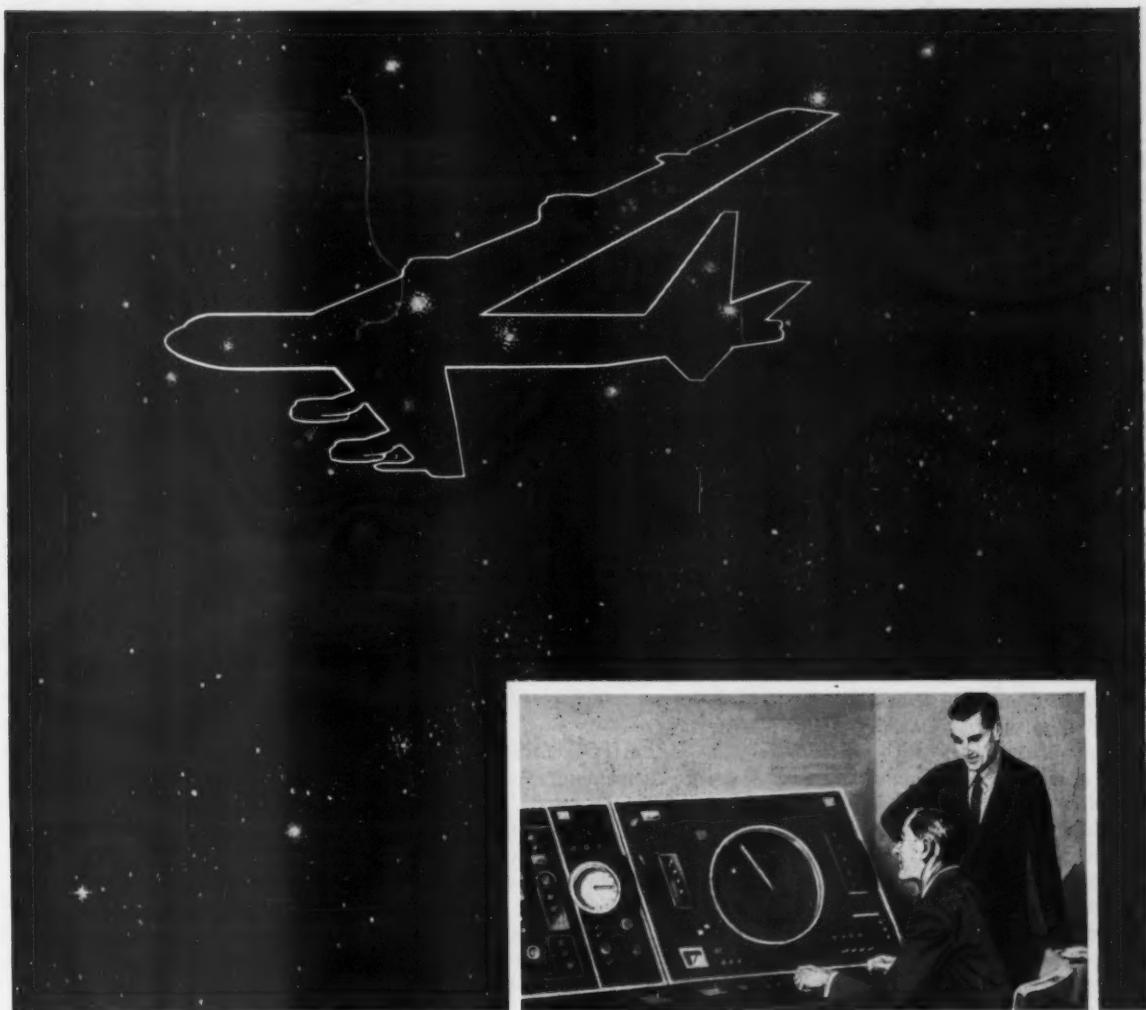
only its organic transportation. It can maintain a two- to three-day stock of these supplies. The bakery section turns out 8,000 pounds of bread daily for a normal ration of one-half pound per man. The petroleum section operates a class III supply point, with gasoline-storage capacity of 99,000 gallons. Although supply-point distribution is normal, it can deliver 39,000 gallons daily with nine organic tank-trucks. (When last heard from, the disturbed QM soldier had been promoted to section chief in the 243d, and is happily dispensing Mogas as a member of a "balanced" service-and-supply team.)

The maintenance platoon furnishes field maintenance of clothing, textiles, footwear, leather goods, and QM mechanical and metal equipment. It also provides spare parts and operating supplies for field and organizational maintenance, and operates an all-purpose salvage collecting point. It can handle

all normal field maintenance except quartermaster air-type equipment, heavy tentage, and fourth-echelon maintenance of heavy equipment. Shop-van trucks with storage trailers carry stocks of spare parts for issue. The platoon makes direct exchanges of selected articles from its maintenance "float." Whenever possible, the operational life of quartermaster equipment is prolonged by employment of contact-repair teams which fan out for on-site maintenance. Teams may make piece-for-piece exchanges when repair proves uneconomical.

A shower and change to clean clothes should be no luxury in nuclear warfare. The DS company provides a vital laundry and bath platoon. Pentomic divisions have no laundry units, but infantry and armored divisions have organic bath facilities. The airborne division not only sends out its dirty wash, but must seek showerheads sup-

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plied by nondivisional quartermaster units. The DS company has three two-man bath teams, each with a new eight-showerhead unit. Teams may split up for independent operations close to supported troops, or may combine facilities. Each can bathe 500 men per day. Clothing exchange goes with a bath. Thus, three laundry sections support bath teams. The platoon can handle a division's weekly bulk laundry.

The basic responsibility for clearing the dead rests with unit commanders. The recovery and disposition platoon operates a collecting point, and gives technical and administrative support required for evacuating remains and personal effects. It verifies identification and inventory of effects, or initiates the identification process if necessary.

Designed for combat

The DS/GS logistical arrangement envisions combinations of unity, flexibility, and dispersion as essentials in modern logistics. Unity of command over the span of complex QM operations requires a selection of tools. Thus, proposed TOE provide alternate, built-in communications systems. This is a radical departure. Historically, nondivisional quartermaster units relied on crank handles of field phones and sinews of messengers—control as staunch as field wire and as fast as human endurance. Added at all echelons are the communications capabilities of radio, radioteletype, and wire teletype. Given communications commensurate with responsibilities, a DS company commander may effectively extend his span of control over a wide variety of quartermaster functions.

The life span of the provisional 243d QM Direct Support Company (7 officers, 1 warrant officer, 292 men) is twelve months. Its worth must be proved through ordeal. "Balanced support" at the DS level is being examined by a Quartermaster Training Command evaluation team. Year-long training includes Army Training Tests and practical field exercises. Structures, grades, and strengths may be adjusted; capabilities modified up or down; equipment added or eliminated. Only after this shakedown may the company's necessity be firmly established to the satisfaction of planners, players, and The Quartermaster General.

Adjunct companies

Adjunct GS units are required to round out the concept and all TOE

have been readied. The GS battalion, with its three "type" companies, is designed for combat-zone missions. Backup support normally will be performed in the army service area. Its field depot company, according to advance plans, will operate a storage and distribution depot for all classes of quartermaster supplies, excluding repair parts, maintenance of operating supplies, and quartermaster air-type equipment. Four "type" companies will be displaced: one to handle subsistence, another to transport refrigerated subsistence, a third to provide clothing and general supplies, and a fourth to dispense petroleum products. Again, single-source operation.

The field maintenance and service company has many purposes. It is designed to provide fourth-echelon maintenance for quartermaster heavy equipment, issue repair parts and maintenance of operating supplies, absorb overflow maintenance from DS units, set up and operate a temporary military cemetery, handle all classes of salvage, provide reclamation laundry service, and pack and maintain parachutes and QM air-type equipment used in Army aircraft.

The current TOE of the three organic service companies have not changed. Their role is the same. They supply trained labor, such as supply-handlers. Each company can handle 640 tons of supplies per ten-hour day. Another mission is to provide labor for digging graves. In fact, these companies will be called upon to perform numerous miscellaneous services on the battlefield. Under the DS/GS concept there will be nine companies in a field army's area. If more labor is required, additional companies may be dispatched from the administrative zone.

There has been considerable discussion at ODCSLOG and USCONARC concerning the shape and composition of a field army's logistical support element. One proposal is that general depots, rather than branch depots, should operate in the army's area. The GS battalion, as is, can man and equip the quartermaster section of a general depot, or operate a branch depot. Should we shift to logistical brigades, it could fall into ranks, unperturbed and unchanged. In fact, it is compatible with a variety of logistical concepts.

Stock control closer to the front

Significant in the DS/GS set-up is the revamping of stock-control opera-

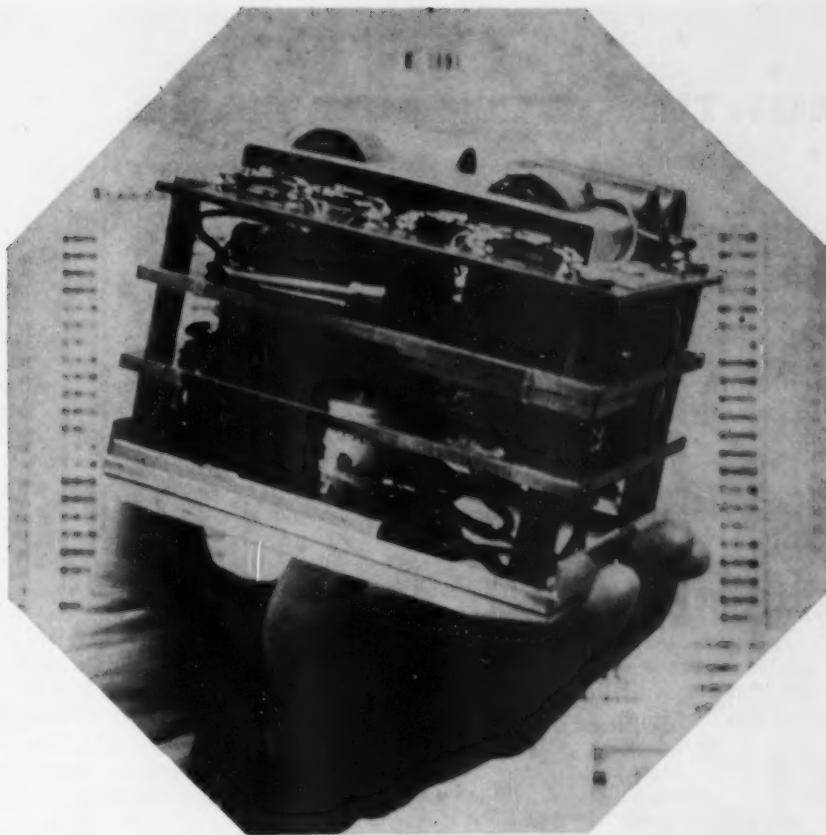
tions. Currently these are performed on a commodity basis by seven of the "type" companies. In view of the modern battlefield's intensified time-and-space factors, stock-control personnel will appear at more operating locations. This should ensure maximum operational sufficiency and responsiveness of supply to demand. Stock control will be performed at each DS company, and at each company of the GS battalion, exclusive of quartermaster service companies. There will be 30 locations in the army's area. The aim is to move control out of the rear areas to as close to the fighting troops as possible, in the interest of satisfied customers.

As a by-product, DS/GS will save manpower—always the major consideration. Under current TOE, there are 10,856 nondivisional quartermaster troops in the field army's area. Planners visualize something better than a two per cent decrease. We can accomplish this in spite of beefing up stock-control activities, multiplying communications facilities, adding to maintenance functions, and operating over longer lines because of greater dispersion. Better management and better control can be credited with the prospect of better service with fewer people. DS/GS is in complete consonance with the streamlining of combat elements.

The little things hurt

Rightfully or wrongfully, quartermaster operators have been accused of clinging to a "red tape maze of proper channels" right up to the fighting front. Korea knew few complaints concerning food and fuel. The customers say it was the little things that hurt: mantles for lanterns, generators for field ranges, GI soap, tent poles, paper clips, bootstrings, underwear, toilet paper. Remiss or not, self-analysis must always follow wars, and plans for future engagements projected. Thus, DS/GS is the outgrowth of both subjective and objective thinking.

The principle of "balanced" supply and services, made possible by pre-tailored DS/GS units, may be the best way yet to keep a fighting army efficient and happy. The Quartermaster General has approved the try. Quartermaster planners, writers, TOE designers, work-measurement specialists, and evaluators are on the job. Best of all, quartermaster officers and soldiers are now in the field, a cohesive team, working the kinks out of an enormously complex supply-and-service system.



The most serious of facts

● "Power when wielded by abnormal energy is the most serious of facts," wrote Henry Adams in *The Dynamo and the Virgin*. One serious fact is the birth of the handful of power above: the early form of a transistor regulated power supply, developed by *tech/ops*, now in production, in sophisticated forms by *tech/ops'* subsidiary, Power Sources, Incorporated.

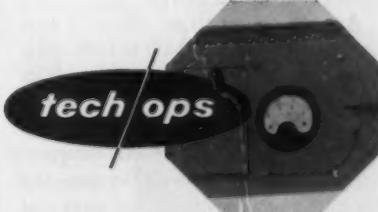
Best suited for arduous requirements in applications demanding reliability under extreme operating conditions which force rejection of conventional power supply circuitry (such as guided missiles and other military space needs), this handful of power is also presently being used in television stations, as in a host of other applications.

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THE MONTH'S CEREBRATIONS

SHOW THEM MORE THAN SKIM MILK

Uncontrolled, personnel assignment can sell the Army short

LT. COL. JOHN H. ELDER, JR.

A source of much concern to Army planners since Korea, and of growing concern each year, is our low rate of retention of young officers beyond the period of mandatory active service. Of nearly equal interest is the low proportion of the best qualified young Reserve officers who apply for RA integration.

These officers, as is wisely and properly required by regulation, serve two years with troop units of their branch. It is during this period that they gain impressions of the service career. It is in this environment that they decide the merits of a service career. Admittedly, they are allowed only a limited period during which to arrive at a grave decision, but this is a limitation which must be faced.

The young officer is partly aware of his limited perspective but perhaps not the whole nature of it. Though he knows he can later serve in higher positions of staff and command, that some officers must serve with the civilian components, that the Army offers many and varied broad fields for specialization, and that high command has both military and political aspects, he is not immediately conscious of the conditions which are met in these assignments nor of the detailed nature of the tasks. He can assume, though, that the people with whom he must serve in these other fields will be of the caliber of those he has encountered during his introductory tour. His impressions of the officers and men around him during this time color his picture of what the service is like as a career.

Are we giving these officers a true and sound basis on which to form their opinions of the people with whom they must serve, and of their careers? Do we show them a true cross section of our field-grade officers, our company commanders, our platoon leaders—the distinguished along with the good and

the mediocre? Or does the Army sell itself short, by letting them see not enough of the distinguished as they observe only the good and the indifferent?

I think that uncontrolled, our assignment system sells the Army short. Granted that all officers must serve overseas and that all must at some time serve with troops. But is the proportion required for service with troops in the various grades the same as that for the total of officers by grade with troops? The answer is No, and I think therein lies our trouble. Generally, the higher one's grade, the farther he is from troops. Or, said differently, the higher the grades, the lesser the percentage of these grades with troops. The solution, then, is to filter into troop units—and into contact with these young officers—a relatively small number that truly represent the whole.

Under our current personnel system, the slate of officers available for assignment within a command is progressively screened at the highest headquarters of that command, then on down to the lowest, each successively descending headquarters screening to meet its needs. Who can doubt that as each successive headquarters searches to satisfy its needs the general quality of what remains in the assignment pool gradually declines? Are those that remain available for assignment to troop units likely to be the cream of the crop? Is it not true that the system operates

at a built-in disadvantage, because of the proportion of the best in the captain-through-colonel grades that is not considered for assignment, pending selection to attend schools?

I do not imply criticism of senior commanders nor the GIs on high staffs. Our system and human nature being what they are, the results, uncontrolled, must be what they are.

This proposition, if correct, supports my earlier one that the Army doesn't present itself in its true light to the young officer it sorely needs and wants. If I am right, then we need to study and revise current personnel policies and assignment practices.

My proposal can be simply tested. If the oft-damned OEI is valid as a device for broad comparison, as is claimed by its proponents, comparison of this index for troop leaders with that for officers in like grades as a whole furnishes a test. For this, average scores will not suffice. Percentages of distinguished officers, of median officers, and of substandard officers all are significant. The youngster should see his share of our future Chiefs of Staff along with the rest.

An even simpler test which does not require access to Pentagon records, but which will be protested by many, is to compare only the proportion of Regular officers in the various grade groups serving with troops with the proportion available to a command. This furnishes an index which is valid if integration selection procedures are valid, because the majority of the officers on active service for more than two or three years has been subjected to highly selective, intensely competitive selection. Only the good have been retained, and of these the best have been integrated. Not valid in individual cases, this comparison nevertheless is good when applied to large numbers.

I think either of these tests will prove my contention that both the

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average OEI ratings and the proportion of Regular officers will prove higher as the headquarters gets higher. If this is true of combat-arms officers, then the units of the combat arms must take up the slack. It is in these units that we sell the young officer on a service career.

Apart from statistical comparisons, there are other indications. Interviews of departing young officers show that the most persistent causes for resignation are harassment and oversupervi-

sion. If the more senior officers under whom these lieutenants serve are not the best, that condition is partly to blame. We all know that only the strong officer will lead by example, clearly fixing responsibility but equally delegating authority to the degree necessary to do the job. Conversely, the weak officer is jealous of his prerogatives, he oversupervises, he withholds his trust.

I leave solution of this condition, if indeed it does exist, to those better

qualified by training. Strong command guidance will be required because it will be the commanders who must be served by staffs on which are some officers who are not the very best.

Lieutenant Colonel John H. Elder, Jr., Corps of Engineers, entered the Army from VPI in 1941, and served in Europe and in Korea. After tours as division engineer and battalion commander with the 11th Airborne Division, he is at Seventh Army headquarters.

"I PREFER BRAND X!"

Eliminate toilet kits from full-field inspections

SP6 WILLIAM J. KENNEALLY

Let's take a look at a typical barracks of a typical unit, on a typical Saturday morning—one hour before a typical full-field inspection.

"Hey, Charlie! Which way does the tooth powder go? With the top up? Or with the top facing the foot of the bunk?"

"With the top up—I think," SP4 Brown replied.

"Boy, I sure can't keep up with all of these changes. The last CO wanted everybody to have blue toothbrushes because he was an infantry officer. Now we've got an artillery officer and he wants red ones. I sure hope that he stays for a long time. The next one is bound to be from Fort Knox and he'll want yellow ones."

"Good morning," said Sergeant Clay

as he entered the squad room. "Let's check over the layouts and see if they are uniformly arranged."

"Hey, Sarge! Which way does the tooth powder go? With the top up? Or with the top down?"

"Put them up! That way all the displays will be the same."

It sounds pretty ridiculous. Doesn't it? You bet it does! But this is exactly what happens in many a unit, prior to a full-field inspection.

More time, effort and energy are put forth to insure that every man has the same type of toilet articles on display than on the actual maintenance of the field equipment. The solution? Very simple! Eliminate toilet articles from the full-field inspections.

If a man is clean shaven for duty each day, it is safe to assume that he owns a razor. The man who is pushing

fifty and has lost his hair certainly doesn't need a comb. And insuring that all the toothbrushes are the same color surely doesn't build morale and esprit.

Our equipment must be maintained in an operational condition. Let's see that it is! Let's not waste time on toilet articles! Let's insure that the man's weapon is clean and functioning properly! Let's insure that all of his gear is serviceable!

Let him select his own brand of toothpaste!

And purple toothbrushes do get your teeth just as clean as any other color toothbrush!

Specialist 6 William J. Kenneally is on duty with the 501st MI Detachment at Fort Hood. He wrote "I've Heard That Song Before!" in the July issue.

TO LEARN TO DISPERSE, PRACTICE DISPERSION

Like the old Indian-fighting Army, let's scatter our tactical units

MAJOR C. A. MITCHELL

We all seem to agree that units on the future battlefield, whether or not atomic weapons are used, will be vastly extended over width and depth. Instead of a front as we knew it, now it's the "battle area" in which the action will be fought over great stretches by fast, hard-hitting, semi-independent battle groups. If it is true that we will fight with scattered, mobile groups, why don't we practice dispersion now?

Between the World Wars, when the Army was much smaller, its units were scattered at small posts over continental United States and at overseas stations. Officers stationed at these posts had to perform their duties with a minimum of supervision. Often the next higher headquarters was hundreds of miles away. Replies to requests for guidance or decision could take days. Most successful high commanders of World War II have said quite frankly that the nature of their early surroundings com-

peled them to develop and use their own initiative in the absence of orders, to accept responsibility, and to practice their own leadership principles.

Articles by regimental and battle-group commanders invariably express concern over the unpopularity of troop duty today as compared with what they experienced as lieutenants and captains. They are alarmed that duty with troops which should be the most sought after service, has become so distasteful that now it is avoided wherever possible.



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If the money, time and effort now expended in the long recognized need to develop leaders are not paying off, perhaps the same outlay under different conditions can prove more successful. The atmosphere that worked before offers practical solutions to most of the irritating and harmful influences that seem to be plaguing us today.

Since World War II we have closed out many of our small posts, returned some to States, and transferred others to the sister services. Some that once accommodated units no larger than a cavalry squadron and an artillery battalion were turned over to the technical and administrative services when we decided upon division-sized posts. As a result, tactical units were packed into bleak areas where housing for dependents was inadequate or did not exist.

Most of these scattered posts are still available. By stationing units of battle-group size at such posts we would

build in the dispersion we are convinced will be necessary on the future battlefield. This dispersion would compel the officers and men of all units to think in these terms, in an atmosphere where self-reliance and initiative are absolutely necessary. The Army, represented by more and smaller units in all sections of the country, would be a boon to more communities and in a position to make a more favorable impression on civilians. In addition, this closeness would enhance the interest, and by actual contact, improve the operational readiness of the National Guard and Reserve.

The airfields at these posts, in combination and in coordination with local fields, would provide sites for training in the aerial communications for troop movement and supply that are inherent in the new dispersal concepts. Battle groups could be air-transported to maneuver areas for annual field exercises

and training tests. Our need for air transport would be starkly revealed to the Government and the public.

Most important of all, the quality and character of our officers and non-commissioned leaders would develop and flourish along those lines that proved so successful in the past and which we must have in the future. This pattern of unit dispersal is within the realm of possibility and within the authority of the Department of the Army. It allows for peacetime application of those vital principles—leadership and initiative—that cannot wait for the battlefield.

Major Clarence A. Mitchell, Infantry, a 1944 West Point Graduate, was a member of the Combat Development organization at USCONARC charged with Pentomic planning. He is now with the Combat Development Experimentation Center at Fort Ord.

UNSELLING THE ARMY TO ITSELF

At summer camp reservists rub shoulders with professionals

Lt. ERNEST E. MARLATT

One of the most irritating problems to vex the Army in its nearly two centuries of existence is the consistently disappointing results of its public relations programs. The Army is a commodity that will not "sell"; a goodly segment of the public continues to stereotype professional officers as arrogant ignoramuses or noncommissioned officers as scheming confidence men. This attitude has deep roots in Anglo-American tradition and is not likely to change overnight.

But a strange new twist on the problem has occurred during the present decade. A very sizeable chunk of the Army is comprised of members of the Army Reserve and the National Guard not on active duty, who are, for whatever the word signifies, civilians. (We used to call them Civilian Components until that became a disparaging term.) In the event of mobilization, these people will in large part *be* the Army, and they will carry over the attitudes and prejudices of their unique status wherever they are of the Army but not in it. A whole new dimension of public relations activity is created by this dichotomy, for part of the Army must now sell itself to the rest of itself, producing, to say the least, a peculiarly schizo-

phrenic approach.

For most of us, the Army resembles the college we attended and which we recall with various degrees of amusement and nostalgia. We are alumni, which fact gives us a certain status when we go back for an occasional visit, but somehow we are disassociated from what has gone on since we left. We feel that the undergraduates, upon being reminded of our mighty exploits in days of yore, really don't give much of a damn. To forestall our complete loss of interest, the colleges dutifully shower us with football tickets and honorary degrees, all accompanied by touching literature about how much we (and our generous financial support) are vitally needed.

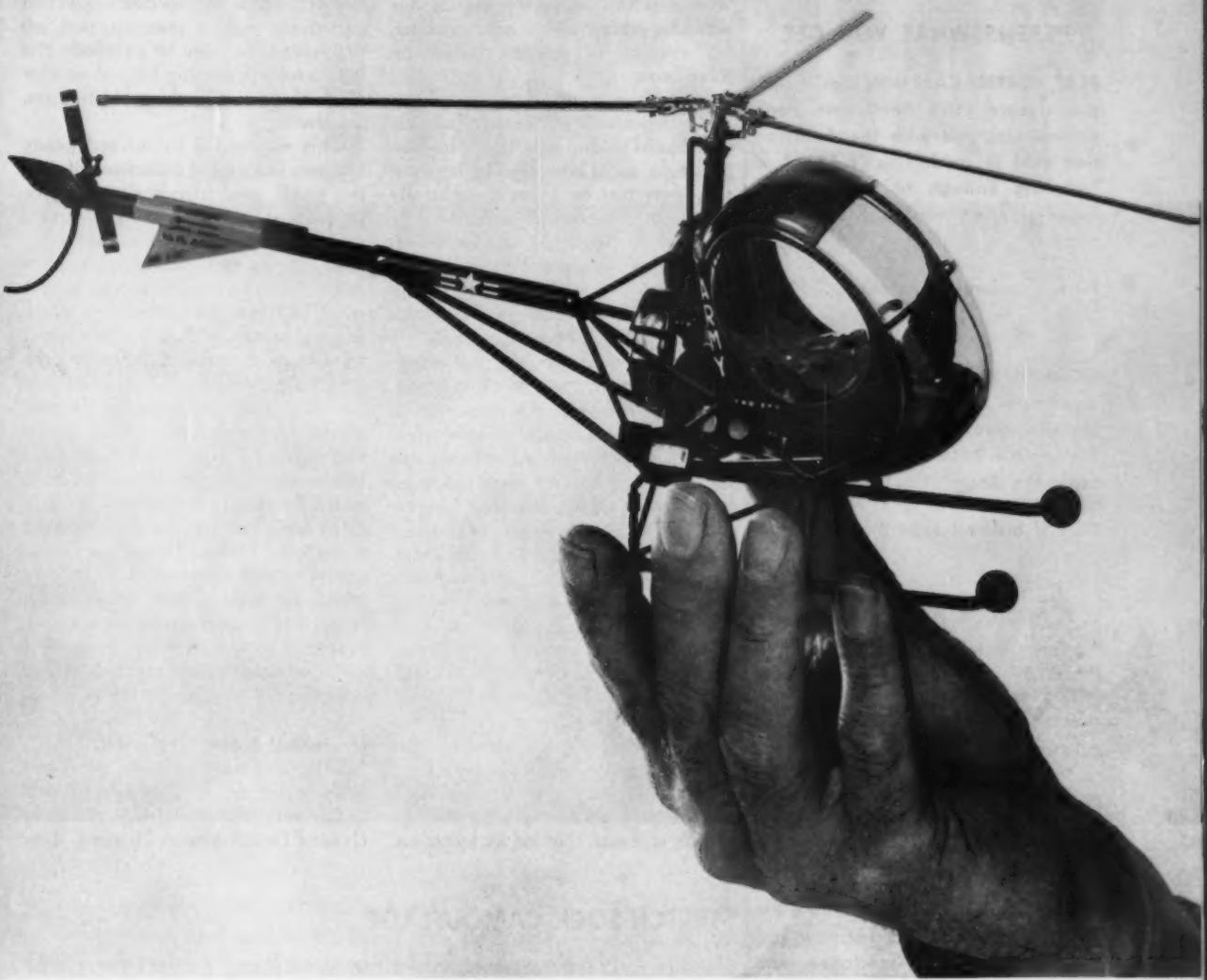
Of course, the Army can't do this. But it has blundered badly on the one point of contact where it could sell itself: annual active-duty training. This is the time when reservists (and much more particularly, their families) have their only real opportunity to rub shoulders with the military establishment.

We have, let me interject, come a long way from the day when that plush militia regiment refused to volunteer for the Spanish-American War for fear its blue-blooded troops might be commanded by—horrors!—some West Pointer of uncertain breeding. But

there still seems to be a tendency on the part of Army administrators, particularly those without prior reserve experience, to regard the reserve forces as a sort of sloppy backwoods militia whose sole function is to consume time, funds and equipment urgently needed elsewhere.

Witness, for example, a Reserve Corps circular I ran across recently: "Orders issued by this Headquarters to an Army Reservist to travel to active duty by a specific method or mode must be regarded as being a lawful order and is therefore not subject to the whims of an individual as to compliance." Then followed many cheerful facts about Article 92 of the Uniform Code of Military Justice. Whatever we may think about the prudence of the tone of this message, its meaning is remarkably free from ambiguity.

What had happened? To avoid liability for highway accidents involving reservists and to insure prompt arrival at the training site, the Army has generally favored use of commercial or military transportation. On the other hand, the reservist found such method of travel utterly impractical since the training sites were generally in remote places where he and his family would be virtually stranded without the family car. Consequently, in the past, he has



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often regretfully declined the proffered plane ticket and driven at his own risk and expense in the family jalopy, knowing that if he is killed or injured en route, it will be held NLD. But now, by so doing, he becomes a criminal. His whims in this regard become as one with his whims about bank robbing, tax evasion, or pushing reefers on schoolboys.

Recently a group of reserve officers was ordered to a midwestern post via commercial air and rail. After a harrowing flight with interminable layovers, they were met by a bus thoughtfully sent from the post; the officers sadly reflected on Article 92 and took taxis (at their own expense) to the distant railroad depot where they departed on the train only to learn that the station near the post had been abandoned. For some of them it was the last straw; we will not see them at camp again.

Or take this one. Our reservist is lucky enough to be able to take a few extra days off the job. After camp, can he go fishing or visit Aunt Minnie? No. Travel Order Number Umpty-Ump made it very clear that he would proceed by commercial air to his home, to arrive thereat NLT such-and-such date. Nothing was said about fishing, and there was no reference to Aunt Minnie. He was *ordered* to go *home*.

Soldiering, we are told, is a rough job; the man who shows up at camp with a beer cooler is viewed darkly. The fellow who brings along his golf clubs is regarded as a playboy. Considering the fact that we are dealing primarily with volunteers, this approach is remarkable for its ineptness.

We (my WWII contemporaries and I) are, alas! no longer lean and mean; only the changeover to AG insignia saved us from agonizing reappraisals about the continued usefulness of those old size 28 OD trousers. Right now we're trained to do a specific job. When and if the balloon goes up, that job will have to be done by somebody else with a lot less training for it if we conclude that we, like those old trousers, are obsolete.

This may sound to our active-duty brethren like a lot of collective self-pity. But recall, good friends, that the man on active duty gets 30 days of leave a year, while the reservist in most cases must give his entire annual vacation to Army duty. To deprive him of his car while he is doing it is, in effect, to confine his family to their home town. I wonder how many transfers to the Standby Reserve have been motivated by the pointed observation on the part of the spouse concerned that she is thoroughly fed up! When I see these fellows quit (and often they are good men), I reflect that they may be dedicated souls but we can hardly expect them to be heroes. To put an expensively trained reservist in a position where he must choose between his family and a court-martial, is not only insulting; it is a senseless waste of a valuable resource: the enthusiasm and dedication of our reserve forces.

Lieutenant Ernest E. Marlatt, JAGC, USAR, a former enlisted man and warrant officer, is presently Claims Officer with the First Judge Advocate General Detachment at Houston, Tex.

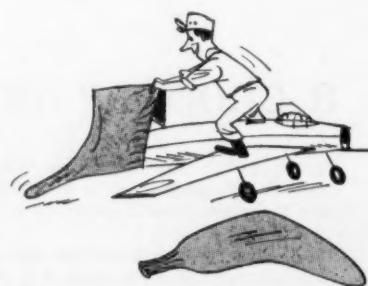
STRETCH SOCK CAMOUFLAGE

Here's a short lead time stretch out project for R&D

LT. CHARLES R. KING

After skimming over the tree tops, the reconnaissance helicopter hovers to earth and gently touches the landing pad laid out by the attached unit. Following tactical concepts, the pilot begins to camouflage and conceal his vehicle against enemy eyes. Here he either resorts to a miniature forest or a suspended camouflage net of Barnum & Bailey size. Both require precious time to move in preparation for a flight.

Since the reconnaissance helicopter has become more and more a command vehicle, its presence shouts out that a



command post is close by. Laxity on the part of the pilot in his camouflage discipline would then be an invitation to an enemy barrage. Short of locating

ARMY

DYNA-SOAR



Dyna-Soar (for dynamic soaring) is a joint project between the Air Force and the NASA, and is an attempt to solve the technical problems of manned flight in the sub-orbital regions. Advance knowledge on the project indicates how a boost-glide vehicle can operate from the outer fringes of the atmosphere where it can maneuver and be recovered undamaged. Studies show that by varying the original rocket boost,

and thus the velocity, and with the control available to the pilot, the Dyna-Soar aircraft can circumnavigate the earth, followed by a normal and controlled landing. Boeing Airplane Company, one of the competing companies for the development contract for the complete boost-glide system, has delegated to RCA the responsibility for the development of important electronic components of Dyna-Soar.



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CAMDEN, N. J.

the landing pad at an extended distance from the CP, how can the commander avoid this artillery-fire magnet but still retain readily available, highly mobile transportation?

The logical solution is to leave the helicopter on the landing pad ready for immediate take-off and at the same time using a suitable camouflage that can be rapidly removed by one or two men. Since reflection from the large Plexiglas bubble must be eliminated, we must consider a covering that is close-meshed but porous. A material that is light, strong, and weather-resistant would be ideal.

Imagine a stretchy material which when extended to its full dimensions would cover the aircraft from bubble to tail boom, yet weighs only five pounds. The material supplying all the qualities required for this ideal helicopter-camouflage cover is available today in the form of men's stretch socks.

This piece of flat knitted material made on a tricot machine could be 15 to 20 feet in its relaxed width, and of a length required to cover the aircraft. A piece of tricot material, knitted with a stretch yarn, that is 6 feet wide and 20 feet long in its relaxed form could be stretched to cover the entire airframe of a reconnaissance helicopter except for the main rotor. This covering is compact enough to be carried in the cockpit, is practically weightless, is strong and durable, and is impervious to water, mildew, and sunlight.

Why stop with just a helicopter covering? Visualize a material that will fit in the glove compartment of a quarter-ton truck, and can be stretched out to cover the entire body from bumper to bumper. The coloring in the camouflage material can be made to blend with existing terrain. All we need do is stretch the covering and spray-dye it with two or three colors from small

aerosol cans. Each time the terrain changes, just change the shade of the dyes on your covering. Ten or twelve shades of dye would be sufficient for all existing terrain textures.

All such materials are not ideas for the future inventor. They are available today and require only realization of their potential value and utilization. Reduction of weight and space has always been a challenge, so why not extend it to our camouflage? We must remember the old expression, "The enemy can't hit what he can't see." Let's do some progressive thinking and re-evaluate all our available camouflage materials.

Lieutenant Charles R. King, Corps of Engineers, is a textile graduate of Georgia Tech and an Army Aviator. After returning from Korea in 1957 he served with the 1st Aviation Company and now commands Company E, 1st Engineer Battalion, at Fort Riley.

RECURRING REPORTS

Cut and fill the Peaks and Valleys for efficiency and economy

COLONEL R. B. WARREN

Recently a comprehensive survey was made of the operations and staffing of the seven army supply control agencies in Europe. These are the technical services organizations which handle inventory control for all European reserve and operational command stocks.

It was found that the workload of preparing recurring reports per year by these agencies amounted to a staggering 9,411 papers which required 227,077 man-hours to prepare. These man-hours did not include the effort necessary to keep the records of property and the accounts of dollars required by regulations and laws. They were only the man-hours needed to prepare the reports for higher headquarters.

Here are the percentages of the several types of recurring reports required:

Type of report	% of workload
Administrative	12.6
Supply control	13.7
Stock control	14.1
Stock fund	18.3
Other dollar accounting	41.3

The point of immediate interest is the dates during the month when these various reports came due. It was found that in general, the reports were prepared by the same group of typists and

analysts. The peaks and valleys in their workload are shown in the chart.

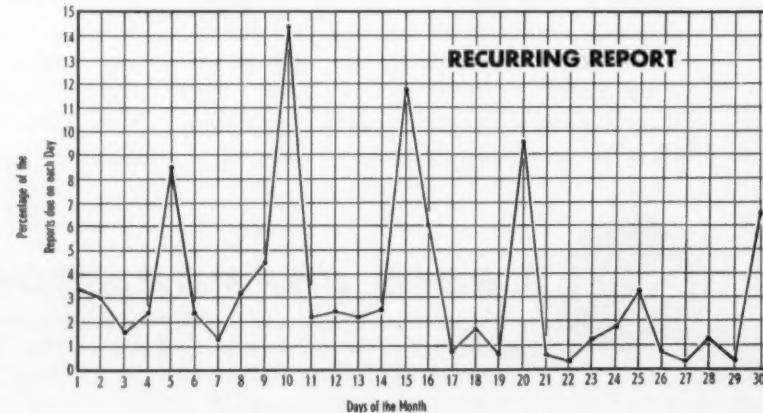
As you can see, more than one-third of the workload comes due on only three days: the tenth, the fifteenth, and the twentieth in each month, with 50.8 per cent of the workload falling on only five days. These include the three mentioned, plus the fifth and the last day of the month. The reports which fall due on the thirtieth and thirty-first are combined on the thirtieth because in a 31-day month, the reports due on the thirtieth are negligible (about 0.3 per cent of the month's work).

The lesson to be learned from these figures is simple. If the supervisors who establish due dates for recurring reports

could even off the peaks and valleys (the unpopular seventh, seventeenth and twenty-seventh days of the month with the popular tenth, fifteenth and twentieth) the work of the writers of the reports would be leveled.

With such a steady workload, the size of the reporting staff could then be scaled down. Of course, other actions have been inaugurated to reduce the number of recurring reports, but that is beyond this simple comment.

Colonel Robert B. Warren, Corps of Engineers, a graduate of West Point (1934) and Cornell (MS-Engineer, 1938), is Chief of Staff, USA ComZ, Europe, at Orléans, France.





ELECTRONIC LIFE PRESERVERS FOR THE MISSILE AGE

They're known as countermeasures.

To you, they could represent the difference between life and death.

Their job: to make missiles miss.

Active countermeasures may jam the radar which guides a missile. Or blind its electronic eyes. Or deflect it from its course. Or help seek it out and destroy it—miles from its target.

They Cannot Wait

If an attack ever comes, there are only minutes in which to act.

ITT is one of the companies holding the stop watch.

More than 15 years ago, in fact, the Department of Defense anticipated missile warfare and assigned ITT to countermeasure development.

Since then, many have been perfected. Others are now being tested. Still others are being rushed to completion. Some are active countermeasures. Others are passive countermeasures, which record hostile electronic activities.

Hundreds of ITT scientists and technicians, specialists in fields such as physics, aeronautics, electronics, chem-

istry and metallurgy, are devoting their energies to the job.

At their disposal are the facilities of 101 growing research and manufacturing plants.

Many Other Big Jobs

Countermeasure development is one of the many areas in which ITT is engaged for the defense of the United States.

Guiding, controlling and testing missiles—to defend, to retaliate—is another vital area of activity.

Still another is the creation of a split-second global communications system for the Strategic Air Command.

And the development of earth satellites another.

The all-important job of operating and maintaining the DEW Line, our Distant Early Warning radar network in the Arctic, is also an ITT assignment.

Countermeasures Come First

The potentiality of missile warfare is a fact we must face squarely, realistically and quickly. Countermeasures must be on call. ITT will help to get them there in time.

**See ITT Exhibit
WESTERN NATIONAL
ASTRONAUTICAL EXPOSITION
San Diego, June 9, 10, 11
Booth 18, 20, 21**



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SEMINAR DISCUSSION DURING CGSC COMBINED ARMS CONFERENCE. From left to right: Lt. Col. Edwin C. Gibson, The Infantry School; Col. Edward B. Bissell, CONARC; Maj. George E. Handley, Jr., CGSC; Lt. Col. Dick S. Von Schirltz,

Special Warfare School; Col. Robert M. Hamilton, CGSC; Lt. Col. George I. Taylor, CGSC; and Lt. Col. Arlin J. Kehe, CGSC. This was only one of many similar study groups formed during the conference.

Combined Arms Emphasized at CGSC Conference

Service school representatives discuss current and future doctrines and concepts of modern army in the field

THE primary objectives of the first Combined Arms and Services Conference at the U. S. Army Command and General Staff College at Fort Leavenworth were to enhance understanding and develop even further the teamwork that is essential to a fully effective Army. Held under the general direction of USCONARC, in May, 120 officers attended.

The theme for the conference was expressed by Maj. Gen. Lionel C. McGarr, Commandant of CGSC, in his opening address: "For some time I have felt that a 'seminar type' conference designed to share experiences, ideas, and solutions in the fields of our basic service school missions—resident instruction, nonresident instruction, current doctrine and combat developments—would be mutually beneficial."

A true Combined Arms and Services approach was possible because of the presence of representatives of all the combat arms and the supporting technical and administrative services.

Through the conference the impact of increased firepower, missiles, improved transportation and communications on tactics and logistics highlighted discussions as conferees were brought

up to date on the Army's latest technological achievements and projected developments.

The conference began with an interrelated series of formal presentations by speakers from Department of the Army, Headquarters USCONARC, the combat arms schools and the Army Aviation School, and CGSC. This provided an educational feature as well as general information and background for seminar discussions.

Briefings emphasized the Combined Arms team. The employment and logistical support of infantry, armor, artillery and air defense were presented from the viewpoint of service school instruction and doctrine.

The capabilities of surface-to-air missiles and concepts for the employment and control of air-defense units in the battle area were comprehensively treated. This enabled conferees to better understand the vital role of air defense in the field army.

The Army's air mobility was vividly depicted in a presentation covering the tactical role of Army aviation, aircraft capabilities, and doctrine for the employment of aviation units.

In its combined arms and services role, the Command and General Staff

College provided the "cap" for the combat arms presentations. Included were current doctrine, instruction, and administrative support functions for larger units within the field army and the theater administrative zone (formerly communications zone).

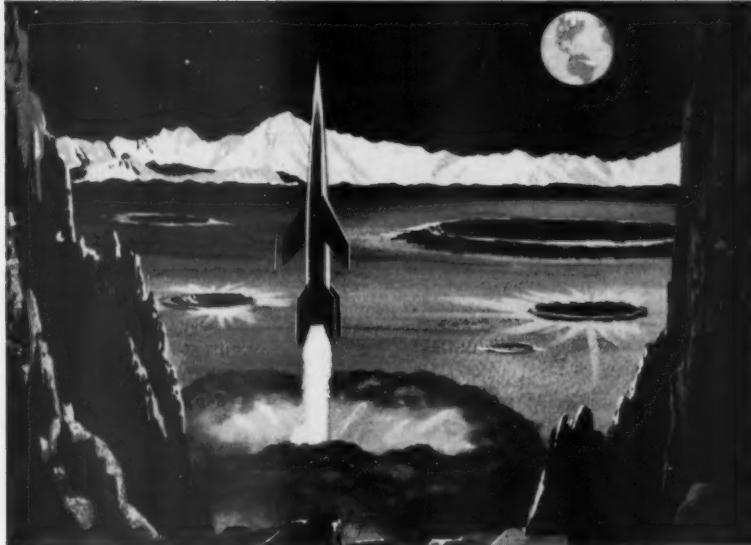
Conferees were divided into four seminar discussion groups representing the basic missions of our service schools: resident instruction, nonresident instruction, current doctrine and training literature, and future doctrine (combat developments). Discussions provided a medium for unfolding thoughts, opinions, exchange of ideas, and identification of common problems. Solutions or recommendations resulting from this mutual attack on current problems were accepted as "bonus effects" for further consideration and exploration.

Summaries of selected seminar discussions reflect both individual and collective thinking, opinions and ideas, although conclusions reached are not necessarily approved doctrine or identifiable with current or projected official positions of represented agencies.

This first working-level Combined Arms and Services Conference as a means for improving overall continuity and closer working relationships was enthusiastically received. Conferees agreed that a series of such conferences definitely would result in increased understanding and closer in-

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The success of that trip will depend in large part on rocket propellants—fuels and oxidizers that will have been stored for days in the tanks of the expeditionary vehicle and yet will respond instantly when needed.

Storable liquid propellants is one of the fields in which Rocketdyne has anticipated the future. For more than ten years, its propellant chemists have been studying, engineering, and testing combinations of storable fuels and oxidizers for greater storability and higher energy.

Storability PLUS high energy

Rocketdyne has tested these combina-

tions in all production and experimental engines. The results prove that today's storable fuels and oxidizers have these important capabilities:

(1) High performance, even after months or years of storage; (2) Stability over a wide temperature range, permitting storage in missile tanks without rigid environmental controls; (3) Dependable performance, predictable even at extremes of heat and cold; (4) Instant readiness for firing at any time during the storage period; (5) Energy yields equal to or higher than those of conventional propellant combinations.

Second-generation missiles

The tests also prove that engines developed for conventional propellants can be converted to storable combinations rapidly and inexpensively—a significant consideration in the devel-

opment of second and third generation strategic, tactical, and air defense missiles.

Significant, too, is the potential performance of storable combinations. Research points to energy yields as high as 400 seconds of altitude specific impulse—performance 20 percent higher than that of today's combinations. These high-energy yields will offer new capabilities and greater flexibility for America's scientific and military programs.

Stepping stones to Space

Rocketdyne has designed and built much of today's operating hardware in the high-thrust rocket field. Engines by Rocketdyne power most of the military and scientific projects



POWER FOR AMERICA'S MISSILES

Thrust chamber production line for Thor and Jupiter at Rocketdyne's Neosho, Mo., facility moves smoothly.

sponsored by Air Force, Army, and NASA. This experience now becomes the point-of-departure for tomorrow's journeys into the unknown.

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tegration of Army-wide instructional and doctrinal efforts. Here is a summary of the conference's thought on doctrine and instruction.

Resident Instruction Seminar

Curriculum and instructional objectives. We must insist on realistic, progressive and selective education and training in intelligence, planning and execution of tactical operations, and administrative support.

A major problem is the limited academic time available for teaching the increasing complexity of modern techniques and matériel and the necessity for developing well-rounded, educated problem-solvers for progressive higher-level assignments. The use of realistic, integrated instruction rather than time-consuming specific separate subjects for student learning is a means of ensuring optimum use of limited curriculum time.

Effective speaking and writing. These skills are not adequately developed in many officers, and writing is considered more of an Army-wide problem than speaking.

An Army-wide program to help correct these defects should have common standards and evaluation means, but be decentralized to schools and appropriate commanders for execution.

Periodic standardized testing should aim at a recognized measure of proficiency for appropriate grades and degrees of responsibility. Evaluation should terminate before assignment to the Army War College.

Added means are formal training in writing and speaking by civilian educational institutions, USAFI extension courses, instructor training courses, and through encouragement of Toastmaster Club type activities.

Nuclear weapons employment training. All combat-arms officers should possess the basic knowledge now required of the commander's specially trained and qualified nuclear weapons employment staff officer.

Further uniformity and standardization is desirable in qualifying the specialist by designating selected fundamental subjects for common coverage in branch schools. Qualifying proficiency in these fundamental subjects, based on type examinations, should be determined by each school.

Nuclear weapons employment training for officers of reserve components not on extended active duty can be best accomplished within the frame-

work of the USAR Associate Command and General Staff College program.

Unconventional warfare. Unconventional warfare will play a significant role in the future. Instruction in this subject and in guerrilla tactics is necessary as a basis for exploiting the offensive potential of friendly guerrillas and defending against enemy irregulars.

Public information. Student awareness of the Army Information Program should be increased. Army information should be an integral part of instruction, introduced early, emphasizing the facts of the situation with respect to public opinion, and telling the Army's story. Information aspects of tactical or training situations should stress the responsibilities and actions of the commander. Public information should not be oversold as an isolated subject.

Nonresident Instruction Seminar

Courses of instruction. Keeping nonresident courses parallel with resident instruction by annual rewrite, though ideal, is not feasible in most instances due to manpower and budgetary limitations. Nonresident material is rewritten by most schools as the need for revision becomes apparent, with complete revision of nonresident programs or a two- or three-year cycle.

Means by which service schools can provide the nonresident student with timely information of major changes in curricula include publication of an annual refresher extension course for resident and nonresident graduates of the administering school or college. Other means are the addition or substitution of complete units of instruction in the USAR school program.

Current Doctrine Seminar

Training literature. Means are required to accelerate and improve the development, coordination and processing of new doctrine, and to expedite their dissemination to using agencies as training and instructional manuals. Time economies should not be sought at the expense of requisite quality and coordination.

Review of doctrinal projects by selected field units in continental U. S. and overseas will add to the responsiveness of doctrinal guidance to the needs of the field commander. This system is currently used by some technical services schools. Projects reviewed by

field unit commanders should be limited so as to minimize additional administrative workloads on field units.

Air defense. The vital need of effective air defense within the field army necessitates clear lines of command and staff functioning and control by the ground forces commander. In all units, the senior air-defense commander should be designated force air-defense commander. The senior field artillery commander should be designated force fire support coordinator, to include coordination of the fires of air-defense weapons when employed in ground fire support. Organic air-defense staff sections at army and corps headquarters are desirable for current and future planning and integration of air-defense operations with force operations as a whole.

Army aviation. To meet the degree of battlefield mobility required under the tactical application or threat of nuclear weapons, reaction time for army air-mobile operations must be measured in minutes rather than days. Planning time for army air-mobile operations should be streamlined and staff planning procedures simplified to achieve instantaneous coordination, dissemination, and execution.

In view of major and rapid developments in Army aviation transport and employment concepts, there is need for clear delineation, in training literature and regulations, of functional responsibilities for aviation matters in support of combat operations. Operational control of supporting aircraft for air-mobile operations should be retained at the lowest unit capable of air movement planning and execution.

Pending development and perfection of devices for terminal control in landing areas, en route navigation and control assistance, the adaptation of the Pathfinder Team Airborne TOE 7-168T is a feasible means of performing this function for large, complex operations. Control for day-to-day air-mobile operations within the division should be provided by the airlifted unit.

Combat Developments Seminar

Program development. The rapid growth of the combat developments program has established a need for further advancing program objectives and guidelines for the various agencies concerned with preparation, coordination, and timely production of future doctrinal concepts.



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Irons in the Fire



Sixteen soldiers in full field pack test versatile new aluminum-constructed two-and-a-half-ton truck.

Very Versatile Vehicle

A new two-and-a-half-ton capacity truck, which weighs less fully loaded than its current counterpart does empty, is now undergoing tests at Fort Bragg, N. C. The vehicle, designed and built for the Army by Chrysler Corp., has aluminum construction, can negotiate rugged hills and terrain, travel across water, and can be parachuted from the air. The truck has an eight-wheel drive, power steering and utilizes a standard commercial truck engine and transmission. Reynolds Metals Co. provided aluminum consulting services.

Booster "Service Station"

Construction soon will begin at Cape Canaveral of a giant self-propelled tower on wheels—as high as a 28-story building—which will be able to erect and service the Army's Saturn, booster for a huge space vehicle. According to Col. Paul D. Troxler, Army district engineer, Jacksonville, who made the announcement, the 305-foot tower will contain a maze of shops, controls, elevators, cranes, and other equipment. Excluding radio and TV antennae, the tower will be the tallest structure in Florida. Each of the two giant legs comprising the skeletal form of the



Lt. John P. Bettencourt of the Army Signal Corps demonstrates the simplicity of operation of the new transportable single sideband communication station, 15 of which have been ordered by the Army from Collins Radio Co. The stations measure about 5 feet by 5 feet by 6 feet. Commercial or motor generator power may be used for the stations, which require only one non-technical operator. The units, which weigh less than 2,000 pounds and can be transported by helicopter or 3/4-ton truck, can be set up for operation within a half hour.

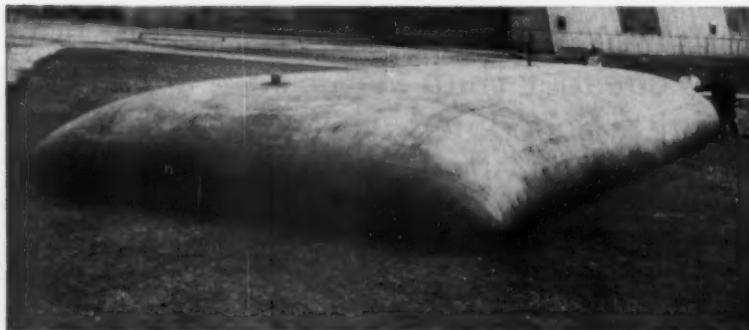
tower will be supported on steel-wheeled trucks for operation on steel rails. The traction system of the tower, which will provide a traveling speed of 40 feet per minute in winds of 40 knots or less, will be located a safe distance from the launching pad when not in use to prevent damage to the tower from possible on-pad explosions.

Ducted-Fan Plane Flight Tested

Successful in-flight transition from vertical to horizontal flight and back to vertical has been accomplished in tests of a rotatable ducted-fan airplane developed for Army use by the Doak Aircraft Co., Inc., Torrance, Calif. The Doak 16—known in the Army as the VZ-4DA VTOL (vertical take-off and landing)—can rise, hover or settle like a helicopter. It also can fly straight ahead at high speeds approximating the performance of conventional fixed-wing aircraft.

The tests were made recently at Edwards Air Force Base, California, with full conversion being accomplished in flights from the ground and also at altitudes of 3,000-6,000 feet.

Propulsion is furnished by ducted-fans which are mounted on the wing tips and can be rotated through 90 degrees. Pointed straight up, the fans provide lift which permits the raising or lowering of the airplane without use of a runway. After a vertical take-off, the ducts are rotated full forward and the Doak 16 then operates much as an ordinary airplane. For a vertical land-



"The largest pillow in the world"—that's what Goodyear Tire and Rubber Co. claims for this 50,000-gallon pillow tank, which is used for storage of liquid fuels and other liquids. Made of rubber-coated nylon,

Goodyear engineers say that similar tanks can be made with capacities of 100,000 gallons and over.



Regardless of size (and equipment) military units move best by rail. Train travel is comfortable, convenient and efficient. Troops, their baggage and impedimenta

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Artist's conception of the Army's M113 aluminum armored amphibious personnel carrier, being parachuted into action. The M113, being produced under a \$34.6 million contract by the Ordnance Division of Food Machinery and Chemical Corp., San Jose, Calif., is a nine-ton replacement for the current 20-ton steel M59 carrier now in use. The aluminum alloy plate used in the construction is said to furnish the same degree of protection that steel offers the M59.



This mechanical ditch digger will dig a trench four feet deep and 24 inches wide at the rate of 12 feet per minute, can dig a foxhole in one or two minutes, or a machine gun emplacement in less than 10 minutes. The ditcher, now being tested at Fort Belvoir, is highly mobile and is capable of road speeds of 35 m.p.h. The digging mechanism is hydraulically retractable for road or air travel.

ing, the ducts are rotated back to the up position and the craft is eased to a landing spot.

With the ducts kept in the forward position, the airplane can take off or land, using an airstrip as a conventional plane. Setting the ducts at an intermediate angle permits short run take-offs or landings. Forward runway take-offs give an advantage in increased payload.

The test plane is powered by a single 840-horsepower Lycoming T-53 shaft turbine engine mounted in the fuselage behind tandem seats for pilot and observer. Its overall span is 25½ feet; length 32 feet; height 10 feet; empty weight 2,300 pounds, gross weight 3,000 pounds.

The engine has a long tail pipe ending in a hinged horizontal and vertical vane arrangement to provide control during low-speed operation and vertical take-offs. Molded plastic skin covers the welded steel tubing fuselage. Propeller blades are of lightweight, tough plastic made by methods developed by Doak.

Missile Vehicle

A combination forklift-tractor-crane, designed to reduce operating costs and logistical support requirements at missile installations, is now being evaluated by the Army. The experimental unit, named the "Telefork" by developer Clark Equipment Co., Battle Creek, Mich., is designed to perform the work of several single-purpose units. The Telefork has a lifting capacity of 10,000 pounds as a forklift, can pull 19,000 pounds as a tractor and can handle 10,000 pounds with its slewing crane boom. Use of the vehicle will reduce by about 10 tons the

weight of equipment needed at each firing battery. During preliminary tests at missile sites, the unit demonstrated its ability to unload boxed missile components, tow trailers to the launching site and—with its crane attachment—aid in missile assembly on the launching rack.



"Sky-Car" Gets Jet Boost

The Piasecki VZ-8P "Sky-Car," successfully tested ground-air vehicle, passed a new milestone recently when the wingless vehicle demonstrated its versatility under power from a jet engine. Powered by a Continental Artouste 11B turbine, the VZ-8P achieved an altitude of 30 feet in its demonstration of vertical take-offs, hoverings, and midair maneuvers. Frank Piasecki, President of the Piasecki Aircraft Corp., said the craft had done everything expected of it and he now plans to proceed with a field test model for the Army.

THE MONTH'S BOOKS

Militarism: Civilian-Military

A HISTORY OF MILITARISM: Romance and Realities of a Profession
By Alfred Vagts
Meridian Books, 1959
542 Pages; Illustrated; Index; \$7.50

Reviewed by

Lt. Col. H. A. DEWEERD, USAR, a former associate editor of *The Infantry Journal* and professor of history, who is on the staff of RAND.

This important study was first published in 1937. It called to the attention of American readers a military historian of outstanding scholarship and grasp of politico-military problems. Alfred Vagts served for a time in the German Army during World War I and since coming to America has produced an impressive list of military studies. These include *Hitler's Second Army* (1943), *Landing Operations* (1946) and *Defense and Diplomacy* (1956). A *History of Militarism*, for some time out of print, has now been republished with two additional chapters covering "newer phenomena, variations, and ideas of militarism" based upon the developments of World War II and the literature since 1937. The two new chapters are highly stimulating, but even without them the book has a quality of "timelessness." It will continue to be read long after many more popular but ephemeral military books are forgotten.

At the outset, Vagts distinguishes between *militarism* and the *military way*. "This distinction," he says, "is fundamental and fateful. The military way is marked by a primary concentration of men and materials on winning specific objectives of power with the utmost efficiency, that is, with the least expenditure of blood and treasure. It is limited in scope, confined to one function, and scientific in its essential qualities. Militarism, on the other hand, presents a vast array of customs, interests, prestige, action and thought associated with armies and war and yet transcending true military purposes. . . . Rejecting the scientific character of the military way, militarism displays the qualities of caste, and cult, authority and belief—militarism has connoted a domination of the military man over the civilian, an undue preponderance of military demands, an emphasis on military considerations, spirit, ideals, and scales of value, in the life of states."

When Vagts finished his original edition in 1937, he was full of anxiety about the Second World War which appeared as a threatening cloud on the horizon. He feared that traditional militarism would reduce the effectiveness of the unready democracies in their defense against Fascist and Nazi aggression. Fortunately, this particular fear was unfounded. "What appeared instead was the militarism of civilian leaders, showing itself in many lands." It is to this developing during World War II that Vagts devotes his two new chapters.

With the exception of the Japanese, those who demonstrated the outward manifestations of militarism during World War II were not professional military men. The Axis war leaders, Hitler and Mussolini, were ex-corporals of World War I. Both Roosevelt and Churchill had administrative experience in World War I, but like the dictators could hardly be considered "professionals." Neither could Stalin, who spent his time becoming a thief and a murderer. Vagts believes it was the civilian leaders who wanted to fight World War II in the image of World War I. It was they who called for "unconditional surrender" and who misused new weapons. It was Hitler and Stalin who were unimpressed by human losses. They were the modern-day disciples of an earlier civilian dictator, Francisco Solano Lopez of Paraguay (1827-70). This jungle warlord conducted a five-year "total" war with his neighbors along the lines advocated by Hitler and Stalin and reduced the population of Paraguay from 1,377,000 to 221,000. Like Hitler, "El Supremo" meddled with the latest hardware, employed the most violent racism, advocated the scorched earth, put women and invalids into battle groups, and regarded courage as the prime military virtue.

The democratic heads of states showed some of the traditional militarist attitudes. Both Churchill and Roosevelt saw Germany as the traditional enemy—as it was in World War I. They did not see in Stalin's Russia a potential enemy which would survive the war and soon become the supreme menace in our time. Roosevelt assumed that handouts without strings attached and *noblesse oblige* would somehow turn Stalin into a reasonable man who would "work for a world of democracy and peace." But

with all their faults, as Vagts points out, "a common liberalism proved a better lubricant of coalition war than Axis totalitarianism." The British Chiefs of Staff, at a considerable expenditure of energy, kept Churchill from going off the deep end in strategic matters. Aside from his insistence on the North Africa invasion and a few interventions in the China war, Roosevelt left the conduct of the war pretty much to his military advisers. Where American military men dipped into the political realm, such as in the Darlan affair and in Stilwell's relations with Chiang, they got burned.

Vagts employs some of his harshest language on the German officer corps which he feels must be judged in the context of German history, "for having misjudged Nazism, its nature and its leaders, for not having removed them when it was in their power, for having accepted offices, promotions, checks for 100,000 marks at a time from Hitler, the 'fount of honor,' though he had members of their estate murdered and defamed, whose guilt the worst careerists like Blomberg and Keitel readily took for granted. Theirs was a spinelessness, a suffering of dishonor . . . which made a former Reichswehr commander say: 'These fellows make of me, an old soldier, an anti-militarist'."

The civilian elements of government reasserted their control over the military whenever this appeared to be challenged in the period after World War II. President Truman removed General MacArthur from command at a time when the General protested against what he called "a new and heretofore unknown and dangerous concept that the members of our armed forces owe primary allegiance or loyalty to those who temporarily exercise the authority of the Executive Branch of the Government rather than to the country and its Constitution which they are sworn to defend. No proposition could be more dangerous." Under quite different circumstances, Khrushchev sent Marshal Zhukov into the wilderness and replaced him with pliant Marshal Konev. At that time the Red Army seemed to be the only element which might check Khrushchev's rise to power, or even eliminate him.

Soldiers are always the whipping boys of dictators. As Vagts suggests, if Halder could get together with Zhukov and they

could compare notes on the folly and ingratitude of their respective former chiefs, they might agree that "from a purely professional point of view, democracies . . . are the best purveyors of soldiers and the best employers of officers." "If they did," he adds, "this would end much of the dichotomy of militarism and what is truly and necessarily military."

Civil-Military Relations

ARMS AND THE STATE

By Walter Millis, with Harvey C. Mansfield and Harold Stein
The Twentieth Century Fund, 1959
436 Pages; Index; \$4.00

Reviewed by

MAJOR THEODORE WYCKOFF, Artillery,
who completed graduate study in international relations at Princeton University.

The term "civil-military relations" should be familiar to today's professional soldier, and he should know what the term means when it is used. For, whether we are conscious of the fact or not, civil-military relations has become a part of the educated man's vocabulary, and its study has become the object of much attention and great interest in highly influential planning circles.

Among the many important ways in which World War II changed this world, leaving it vastly different from anything ever known before, not the least important was the fact that society in the victorious countries remained militarized in a manner quite unknown before the war. The United States, for years the world's leading pacifist nation, found itself in the postwar decade maintaining, for good and sufficient reasons, a military establishment ranging in strength between one and a half and more than three million, while military expenditures were consuming on the average considerably more than a tithe of the nation's gross annual income.

That a large and powerful military machine had become a permanent feature of the American scene was rather tacitly recognized; the effect that such an institution would have on American society was, on the other hand, only imperfectly perceived. Whether the presence of large numbers of uniformed and armed Americans deployed around the world would have any permanent effect on the broad fabric of American society was a matter little considered and even less understood.

It was in recognition of the long-range significance of this new phenomenon in American life that The Twentieth Century Fund—a philanthropic foundation conducting research into economic and social problems—undertook in 1953 a special research project on civil-military relations, naming as its director Profes-

sor Harold Stein of Princeton. *Arms and the State* is the first book-length product of Professor Stein's research.

The book takes form basically as a historical survey of official U. S. civil-military relations during the quarter century beginning in 1930. Starting with an analysis of civil-military relations in government during the prewar decade, the study goes on to analyze some of the significant civil-military features of America's wartime administrative organization. Discussing both the domestic and the overseas-oriented facets of America's wartime bureaucracy, the first part of the study, written by Mansfield (with Stein), sets the stage for an analysis of the postwar developments suggested above.

The second (postwar) part of the volume, by Mr. Millis, offers the same type of penetrating insights which marked his *Arms and Men*, published in 1956. Dealing with specifics, these six chapters provide a thought-provoking review of U. S. national policy in the years just ended. That there are lessons to be learned even in a period so recent is evident, for example, from such a dramatic case as that of "Truman and MacArthur," described in Millis's chapter of that title.

A worthwhile addition to the library of the military student, this book cannot properly be said to have the stature of Millis's *Arms and Men*, or of Samuel Huntington's trail-blazing *The Soldier and the State*. Having set more modest objectives and covering a narrower span of history, *Arms and the State* accomplishes what it sets out to do: to focus attention on the civil-military aspects of U. S. governmental organization during the past twenty-five years.

Britain's Armor Branch

THE TANKS: The History of the Royal Tank Regiment
By Capt. B. H. Liddell Hart
Frederick A. Praeger, 1959
Two Volumes; 462-555 Pages; Illustrated; Maps; Index; \$15.00

Reviewed by

MAJOR WILLIAM GARDNER BELL, Armor, former Editor of *Armor Magazine* and Secretary of the U. S. Armor Association, who is at work on a volume in the Army's history of WW II.

In World War I huge ground armies took the field, formed opposing lines, and then, hammering at each other with artillery barrages, machine guns, and masses of infantry, gradually sank deeper and deeper into trenches behind barbed-wire entanglements. Maneuver evaporated, generalship languished, and stalemate and attrition set in. The defense was in the ascendant.

The story of how barbed wire, trenches and the machine gun were

overcome and maneuver, mobility, and the offensive restored to the battlefield is, for the general military reader, the main thread running through this new work by the distinguished British military writer. Fundamentally, this is the story of the tank in its development as a tool of warfare, from a barbed-wire-crushing, trench-straddling, infantry-accompanying implement in the First World War, to the fast-moving, far-ranging, hard-hitting instrument of Blitzkrieg in the Second.

At the outbreak of war in 1914 the machine gun had been integrated into the great powers' weapons systems, and as the war progressed operations took on the complexion of a siege. On the Western Front, "The Somme offensive had opened tragically, on July 1 [1916]—with little gained for the heaviest loss of life that the British Army had ever known in a day of battle. Nearly sixty thousand men had fallen, one-third of them being killed. The offensive continued to bring disappointing progress at exorbitant cost."

But while the first world conflict had come at a moment when the machine gun was influential, its eruption coincided with the dawn of mechanization, and in the early months of the war a few visionaries turned to the new technology for the solution to the battlefield impasse. From a technical base in the Air Service of the Royal Navy (the result of that arm's use of armored cars to protect forward air bases on the French coast) the efforts found their proper focus in the British Army, where thoughts were concentrated on an armed and armored vehicle capable of flattening wire, spanning trenches, and knocking out enemy machine guns. Liddell Hart's account of the development of such vehicles, which were to take their name from the security designation under which they were shipped to France, is a fascinating one.

The tank had a somewhat premature baptism of fire, in the September 1916 Somme offensive: this at the insistence of the British field commander, Marshal Haig, who was burdened down by heavy losses and growing criticism at home; and to the dismay of the innovators (Swinton, Fuller, Martel, and others) who hoped to see the tank employed in significant numbers in order to wring full advantage from the surprise inherent in the introduction of a new weapon. The three dozen tanks that reached their starting positions were hardly in appropriate ratio in an operation where "on five miles of the Fourth Army's front, nine assaulting infantry divisions were concentrated, covered by the fire of 1,258 guns and howitzers . . . the equivalent of one field piece for every ten yards of front."

Nor were numbers and tactics much

better in 1917 at the Third Battle of Ypres, when "the artillery massed for the bombardment totalled 3,091 guns—one to every six yards of the eleven mile assault frontage," and "four and a quarter million shells were fired in the preparation and opening attack, to clear the way for the infantry." If they cleared the way for infantry, they churned up the ground so that the tanks, parceled out in dribs and drabs all over the front, found the going extremely difficult. Some 68,000 casualties were suffered in a matter of days, while 14 of 22 infantry divisions had to be withdrawn to recuperate. Gains were limited. This was still deadlock!

More in line with the creators' dreams was what occurred at dawn on 20 November 1917, when more than 300 tanks hit a six-mile segment of the Hindenburg Line before Cambrai, leading five divisions in the assault. By noon the armor had overrun the enemy's four trench lines to a depth of four miles, shattering two divisions and taking 100 guns and 4,000 prisoners at a cost of only 4,000 British casualties. This was more like it! As the author puts it, "The Battle of Cambrai changed the tactical climate of war—and of warfare."

Despite the promise of Cambrai the new medium failed of full acceptance and its sponsors had a difficult time fostering it in the between-wars period. There was the normal (or should we say usual?) resistance to change. Economy, always a peacetime watchword, held sway. There was the jealousy—indeed, resistance—of the traditional arms, which played no small part in retarding the development of mechanized forces. Most amazing was the failure of the cavalryman (and this story has its parallel in all the industrial nations) to see himself as the logical heir to the tank as a new "mount" to carry forward his traditional role, now that the horse, after a number of reprieves, was finally being blasted from the battlefield. The hold of tradition, the sentimental attachment to the horse, and the limited acceptance of the new armored idea, are readily apparent in the British Army Estimates for 1935-36. Introduced some 17 years after Cambrai and a bare five short of Blitzkrieg, this budget provided £400,000 for forage as against only £121,000 for gasoline.

The struggle of military visionaries against conservatives is a familiar one, and Liddell Hart's account is equally valuable for its exposure of hindrance as for its exposition of success. All this leads one to wonder how measurable is the culpability of those who—through motivation of economy, jealousy, tradition, conservatism, reaction, or what have you—demonstrably inhibit the orderly, logical and timely development of new methods and means which give fair

promise of putting one's country a step ahead of existing or potential enemies. How strange that the temporizer on the battlefield quickly gets the axe, while his counterpart back along the line is rarely called to account!

At any rate, it is always a matter of great satisfaction to see one's case justified after a long and arduous period of cultivation, and Britain's tank exponents knew such a vindication. But there was small comfort in the event, for the enemy did the proving, after drawing heavily on the theories of the British creators. Germany's forward thinkers, notably Guderian, had more success than their opposite numbers in Britain. Refining the armor idea into Blitzkrieg, while their Franco-British opponents fought more in terms of the last war, they quickly overran the opposition.

The first volume of *The Tanks*, covering 1914-39, is perhaps the more important of the two, as it deals with the origins and early development of the tank and armored warfare. On the other hand, the second volume, on 1939-45, essentially the story of British armor on World War II battlefields, represents a great contribution to the literature on armored warfare. Particularly interesting in the coverage of the campaign in the West in 1940 is the action of the 4th and 7th Royal Tank Regiments at Arras. The description of the ebb and flow of battle in the desert campaign against Rommel is at once great military history and a course in command, leadership, tactics, and communications. In the turning tide leading to final victory in North Africa, however, veterans of the U. S. 1st Armored Division's action at Kasserine Pass may be somewhat surprised to learn that Rommel's attack was finally repulsed by the British 6th Armoured Division, which had been rushed down from the north."

The part played by British armor in operations in Sicily, Italy, Western Europe, and the more minor campaigns, along with developments on the home front affecting armored warfare, are traced by Liddell Hart and a half dozen supporting authors. It must be mentioned that this work contains good operational maps, excellent illustrations of equipment, and an outstanding index.

In an author's conclusion that looks to the nuclear battlefield, Liddell Hart finds in armor's twin characteristics of speed and flexibility the real prospects for future ground operations. "For the military problems of the present time, in a world that lies under the shadow of this catastrophic cloud, turn more than ever on the time factor throughout the whole range of risks from a minor bushfire outbreak or sudden local pounce upwards to all-out war."

In historical perspective, it hasn't been so long since those newfangled machines

labelled "tanks" were shipped to the battle front. (Latter-day tankers will heave a sigh of relief over the knowledge of how narrowly the vehicle from which they draw their designation escaped being called a "cistern," even while their friendly rivals, the doughboys, will know a moment of regret over a lost opportunity.) But the time had more than come for a treatment on armor of sufficient scope to embrace its origins and its roles in both wars. The appearance of this work underlines the lack of a comparable product on U. S. armor. A topflight manuscript, hitting the subject in width and depth, which I read early in this decade, continues to go begging for sponsorship and a publisher.

The Colonels-Commandant of the Royal Tank Regiment (that's what the British call their Armor branch) showed supreme judgment in selecting Liddell Hart to do this history. Apart from his reputation as one of the outstanding military analysts on the international scene, the author was himself one of the visionaries in the field of armored warfare, who did much to set out the terms of reference for the new idea, as has been so well attested by Guderian and others. After a dozen years at the task, Liddell Hart has produced what is certainly an eminently satisfactory history of the Royal Tank Regiment. His work is of far greater significance—a text on mobile warfare, and above all, one on the application of technology to war.

The Resources Problem

INTERNATIONAL RESOURCES AND NATIONAL POLICY

By Olin T. Mouzon

Harper & Brothers, 1959

752 Pages; Illustrated; Maps; Index; \$7.50

Reviewed by

PEREGRINE WHITE, who is Scientific Information Officer, Office of Ordnance Research, U. S. Army, and who has reviewed other books on this subject.

Dr. Edward Teller, brilliant teacher of matters complex and gigantic, made a recording for General Dynamics Corporation a couple of years ago in which he set forth the nature of the universe, in an easy, conversational manner that he would have used if giving his exposition to an after-dinner group of interested listeners. Dr. Mouzon's book on the vast subject of international resources and national policy is cast in the same vein. It is fascinating reading, despite the menace of statistics and charts. It is marvellously informative. In a word, it is great teaching.

His subject has all the dynamic elements of nuclear physics. It is ever-changing. Scholars in the field of resources and national policy must ever respond to Thoreau's suggestion as to how the individual should compose his life: "Pursue, keep up with, circle round and round your life, as a dog does his master's chaise."

Do what you love. Know your own bone; gnaw at it, bury it, unearth it, and gnaw it still."

International resources is an excellent bone. We will never be finished with the subject. Advancing technology exploits world resources with unabated appetite. New raw material discoveries are rapidly exploited until additional sources become a crucial need. There is a constant interplay of political considerations, and the ever-shifting trend of national policy. Entirely new industries requiring scarce materials come into prominence—such as electronics, jet engines, and the revolutionary new nuclear reactors.

Dr. Mouzon has come up with a book that presents a vast amount of factual data and perspective in very readable form indeed. To the fullest possible extent his terminal date for data and policy is January 1, 1957. This does not make his volume out of date by the time it got printed. Some time cut-off is inescapable in the field of this complex subject. What he does that is valuable is to bring the reader up to near-currency with respect to a vast area, giving him a genial orientation. Even those who must gear their action to the latest edition of the *Federal Register* will find Mouzon's book a valuable source for the history of the resources problem, and the policies applicable to it. They will find his substantial bibliography of certain service.

He covers innumerable facets: agricultural resources, minerals, natural gas, atomic energy, power, material resources, capital resources, human resources, the strategy of security (geopolitics and economics). His writing style is an easy-going blend of sophisticated approach, occasional sermons, many questions approached, appropriately enough, as open-end queries. He is obviously an enthusiast, eager to share the fascination of a great subject with all who will listen. There should be many who will.

Scouting the Beaches

THE SECRET INVADERS
By Bill Strutton & Michael Pearson
British Book Centre, 1959
286 Pages; Illustrated; Maps; \$3.95

Reviewed by

Lt. Col. W. CLARK ISEMINGER, Corps of Engineers, USA, who is Chief of the Military Intelligence Division, Beach Erosion Board, U. S. Army Corps of Engineers.

This narrative of British beach reconnaissance operations is based on data kept secret during World War II. It tells, with human interest, the story of the heroic actions of the pioneers in these covert operations who operated under the unglamorous and deliberately misleading title of Combined Operations Pilotage Parties (COPP).

Although it does not pretend to be a history of COPP, this story was developed from detailed operational reports and personal interviews. License on the part of the authors was used "only where those who took part were not available to supply in person the final dimensions of reality." Touches of romance and droll humor are cleverly woven into personal experiences throughout.

The authenticity of several of the adventurous missions is confirmed in publications of our Office of the Chief of Military History and in General Bradley's *A Soldier's Story*. However, the cause of the delay in the initial launching of landing craft off the Oran beaches given in our history differs from that given in this book. The foreword is by Earl Mountbatten, who was Chief of Combined Operations for the planning of the North Africa invasion.

COPP had its beginning in Cairo during January 1941. The story is woven mainly around that of Lieutenant Commander Nigel Willmott (now Captain, RN, and member of the Naval Staff at the Admiralty). As navigating officer to a force formed for the first full-scale amphibious invasion of the war, he was responsible for beach intelligence. He believed available intelligence was inadequate, and that unless the guarded beaches could be visited and the necessary data collected, the success of the landing could well be jeopardized. His concept of beach reconnaissance under the very guns of the enemy by submarine, collapsible canoe, and swimmers burdened with protective clothing and equipment was new and therefore difficult to sell the High Command. His first reconnaissance was successful, but the invasion was postponed. His proposed plans for developing his concept were buried for a while. However, when planning reached final stages for the North Africa invasion, the importance of accurate beach intelligence became apparent and he was given authority to prove the feasibility of his concept on a large scale. It was successful, and so began COPP, successfully used in the invasions of North Africa, Normandy, and the Far East.

Training of Coppists in England was rigorous and dangerous, most of the time extending over 20 hours a day. One requirement was a daily exhausting swim in the raw the year around. COPP's operations in most instances called for the extreme in physical endurance. In fact, the lives of Coppists often depended upon such effort, whether it was swimming, paddling, or living off the land in the Malaya jungles. On one occasion two Coppists missed their rendezvous with their submarine. Rather than be captured, they paddled a canvas

canoe 80 miles through storm-tossed seas to Malta.

For the Normandy invasion the Coppists used "X-craft"—midget submarines for shore reconnaissance—and swam directly ashore from them. Although they had reconnoitered the coasts, U. S. authorities elected not to use X-craft as beach-marker buoys for fear they would be detected and the element of surprise, so greatly needed for the Utah Beach landings, would be lost. It is interesting to note that probably because of poor visibility and southerly currents, the designated landing area on Utah Beach was missed by some 2,000 yards. Fortunately, landings were made at a place less heavily defended than the designated area, and losses were few.

The detailed intelligence needed for selecting amphibious landing sites and the methods of obtaining it have not changed greatly over the years, although equipment has been somewhat improved. The Coppists deserve great credit for their ingenuity, daring, and successes. This book should provide interesting and instructive reading for all soldiers, particularly those interested in past, current and future conduct of amphibious operations.

How-To for Guardsmen

GUIDE FOR ARMY NATIONAL GUARDSMEN

By Col. James B. Deerin
The Stackpole Company, 1959
322 Pages; Illustrated; Index; Paper, \$3.50

Reviewed by

CAPT. WILLIAM V. KENNEDY, free-lance military writer, who is S2 of the 1st Squadron, 104th Armored Cavalry, Pennsylvania Army National Guard.

James B. Deerin is a colonel in the New Jersey Army National Guard, a former Chief of the National Guard Bureau's Information Office and present public relations director of the National Guard Association of the United States.

"Somewhere," Colonel Deerin states in his preface, "in the great number of official and unofficial publications . . . there undoubtedly can be found the answer to nearly any question. . . . It has been long felt, however, that there existed a need for a single volume . . . [in] which would be brought together the information and guidance most frequently sought by members of the Army National Guard. It was with this in mind that the author undertook the writing of this book."

The need will be certified by any harried National Guard company commander. How well, then, does the present volume answer the need?

Colonel Deerin's *Guide* begins with a capsule presentation of the history of the National Guard and of the Army, covers the broad outline of the Pentomic organizational structure, presents a brief

description of the major levels of staff and command, and then goes on to just about every subject affecting the administration, leadership, discipline, public relations, mobilization and legal employment of a National Guard unit, with plenty of sound how-to data on each.

The treatment of these subjects is short, yet clear and to the point. The answers provided should be all the answer necessary for 75 per cent of the questions normally encountered. There are plenty of simple, easy-to-read organizational charts, pay tables, basic administrative forms, and even a diagram showing how to set up a rail kitchen car.

Beyond its strictly utilitarian aspects, *Guide for Army National Guardsmen* is an important contribution toward filling the big, almost bare shelf reserved for books on the place of the National Guard in our defense structure.

Guide for Army National Guardsmen deserves a place on the desk of every Army Guard officer and in every Guard unit's library. It will pay for itself in hours saved ploughing through manuals and regulations.

Are Rockets for Amateurs?

THE ROCKET HANDBOOK FOR AMATEURS
Edited by Lt. Col. Charles M. Parkin, Jr.
The John Day Company, 1959
306 Pages; Illustrated; \$5.95

Reviewed by

MAJOR PATRICK W. POWERS, Artillery,
who has been active in the missile field since 1950 and who has written many articles on the subject for ARMY.

The great surge in military rocket technology has undoubtedly brought in its wake the same sort of interest that the airplane did after World War I. However easily the amateur embraced the science of aeronautics, he seems to have met his match in the rocket. This "handbook" is an attempt to ease the transition from backyard science to a nodding acquaintance with an aerial vehicle that has its ups and downs even in the hands of the "professionals" at Cape Canaveral.

The book is a compilation of fundamentals of rocketry with the aim of assisting the amateur rocketeer in building a foundation of knowledge for live experiments with his new hobby. Wernher von Braun emphasizes the purpose when he states in the foreword: "As in every productive pursuit, enthusiasm and determination are essential, but the basic requirement is knowledge." There is a massive attempt to achieve this requirement with an extensive technical coverage that the college engineer will find to be reminiscent of his textbooks. The scope is quite broad, from "Human Factors in Space Flight" through "Liquid

Propellant Rockets" to "How to Build, Test, and Launch a Model Rocket." Most of the information and fundamentals presented would be helpful to anyone interested in rockets, but an engineering background is almost essential for a real understanding of the material.

It would be fair to say that this book has attempted to launch a very fixed and inescapable fact: rockets are *not* for amateurs. The rather curious and awkward combination of chapters and the advanced technology contained indicate that launching model rockets is a hazardous and difficult operation. This has been highlighted recently by the American Rocket Society's strong opposition to experimental work, by amateurs, with explosive propellants. However, there is always encouragement to those who would further their understanding of rocket technology by study and imagination. In the hands of the serious rocket enthusiast and engineer, this book provides an interesting refresher course of the easily forgotten fundamentals of the sciences which are propelling us into space.

Bizarre Side of War

WAR IS A PRIVATE AFFAIR
By Edmund G. Love
Harcourt, Brace & Company, 1959
192 Pages; \$3.75

Reviewed by

MAJOR SANFORD H. WINSTON, Infantry, who commanded a platoon and later a company of the 33d Infantry Division in the Pacific, and wrote that division's war history.

In *War is a Private Affair* Edmund G. Love serves up a literary assortment of high hard ones, curves, and screwballs. Every one is close to the strike zone. This book of ten short stories recounts the bizarre experiences of soldiers the author claims "the Army is trying to forget." Each tale is keyed so distinctively that the volume never takes on a set pattern. It is this unpredictable change of pace that makes Love's a fascinating book. His stories range from the deeply moving to the incredibly hilarious and manage to tweak most of the emotions in between.

Love was no stranger to the Pacific campaigns he writes about with such authority. As a captain assigned to a historical unit that had the Central Pacific as its beat, he covered all the big ones from Kwajalein to Leyte. He specialized in the individual and squad after-action interview pioneered by Brig. Gen. S. L. A. Marshall. As noted in the introduction, he talked to almost every man in four divisions, and amassed 15,000 pages of notes by war's end. Out of these have emerged the singular characters and convincing background of *War is a Private Affair*.

The title story centers on T/5 Stephen Prosnak—a collector supreme—a man with the lightest touch since Jimmy Valentine. As a rifleman in combat with the 27th Infantry Division, Prosnak collected the DSC, three Silver Stars, three Nambu light machine guns, 74 Samurai swords, 126 (made in Japan) wrist watches, 379 belly flags and \$17,000 in yen notes. Prior to combat, Prosnak collected all the rings, wallets, fountain pens and cigarette lighters in Company B, 106th Infantry.

Prosnak's company commander recognized the signs of kleptomania in this Hell's Kitchen orphan and unreconstructed juvenile delinquent. He saved Prosnak from a cell in Leavenworth by initiating a company policy that permitted Prosnak to steal everything in sight between Sunday and Friday. On Saturday, Prosnak had to return the loot and start all over again. He repaid this vote of confidence with a brand of wartime and postwar devotion that almost defies belief. His is a gripping story from beginning to end.

Anyone who admires raw courage will be stirred by the story of Captain Ben Salomon, regimental dentist with the 105th Infantry on Saipan. Though schooled as a dentist, Salomon was drafted into the infantry. Quickly he became the most rugged and skilled doughboy in his outfit. When a commission as dental officer finally was forced upon him, Salomon refused to sever his tie to the infantry. Every day at noon he closed shop and headed for the boondocks to train with the regiment's rifle companies.

Captain Salomon, regimental dental officer, played a strange role on the night of 6 July 1944, when the 105th was steamrollered by a 9,000-man Banzai attack. In describing Salomon's actions during this fight, Love succeeds in bringing the feel of battle and bush right to the reader. It wouldn't be cricket to reveal the unusual twist in Captain Salomon's story, but it's guaranteed to leave you slightly shaken.

T/5 Prosnak and Captain Salomon are but two of the absorbing soldiers whose exploits fill the pages of *War is a Private Affair*. Love puts the spotlight on Major Peter Claver Kenton, who worked as a midway barker, a pinsetter in a bowling alley, and as a desk clerk in a Honolulu brothel because Army life bored him; Private William Hackleford, who earned four Purple Hearts and was almost court-martialed because a Japanese shot him in the big toe; and the troops of Company G, 106th Infantry, who lugged an infant girl through most of the Okinawa campaign because they didn't know what else to do with her.

If variety is your dish, you'll enjoy *War is a Private Affair*.



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REPORT FROM AUSA CP

The Association is happy to announce that it was able to award a total of \$400 to three uniformed authors who submitted award-winning papers at the 1959 Army Science Conference held at the United States Military Academy on 24-26 June. These awards were made by the Association in order that military scientists would receive the same monetary rewards for outstanding work as civilian scientists of the Department of the Army receive through the Army Incentive Awards program. The law authorizing this program forbids cash awards to military personnel.

Maj. Gen. A. J. Drexel Biddle, AUSA's president, made the awards to the three military scientists, all of whom are Medical officers.

Major L. V. Crowley and Captain J. F. Oates both of the Walter Reed Army Institute of Research were rewarded for the paper they prepared with two civilian scientists, A. D. Glinos and S. M. Levinson, on "Injury, Wound Healing and Liver Regeneration." This paper was awarded a \$500 prize by the judges; the two civilians receiving \$125 each from the Army Incentive Awards Board and the two officers \$125 each from AUSA.

Captain Robert F. Hustead, U. S. Army Chemical Warfare Laboratories, who with Dr. J. A. Clements, wrote a paper entitled "A New Mechanical Resuscitator for Military Field Use" received \$150 from AUSA since this paper was selected for a \$300 award.

This is the second year the Association of the U. S. Army has cooperated in this program.

WALTER L. WEIBLE
Lt. Gen., USA, Retd.
Executive Vice President

CHAPTERS

AUGUSTA AREA CHAPTER—One of the Chapter's most successful meetings in its history featured Mr. William Courtenay, British war correspondent who has spoken to many AUSA chapters. The 15 June meeting at the Bon Air Hotel in Augusta resulted in one of the most publicized meetings in the area, and made many friends for the Chapter. An editorial in the *Augusta Chronicle* following the meeting was most complimentary.

CONNECTICUT CHAPTER—Charter presented 22 May at meeting in Hartford Club by Lt. Gen. Walter L. Weible, Executive Vice President of AUSA. Audience of 150, including many general officers of all three components, heard General Weible speak of AUSA's history and objectives.

EAST BAY CHAPTER, Oakland, California—Special Board meeting on 26 May held to organize Chapter's efforts in recent Nike-Bomarc controversy. Effective action resulted.

ARMY

FORT RILEY-CENTRAL KANSAS CHAPTER—Chapter has been providing speakers for local small-town events, including Memorial Day services, and the like. Chapter had a prominent part in assisting 1st Division in celebrating its Organization Day, and in informing Kansas about the Army's position in the Nike-Bomarc discussions.

FRANKFURT CHAPTER—Lt. Gen. Paul D. Adams, CG, V Corps, was the principal speaker at meeting on 18 June at the Frankfurt Casino. General Adams spoke on "Needs and Development of the Army."

GENERAL JOHN J. PERSHING CHAPTER—Almost 300 members and guests attended dinner meeting on 14 June, at which Lt. Gen. W. H. Arnold, CG, Fifth Army, was featured speaker. General Arnold also participated on 30-minute TV program during which he was interviewed by three reporters. State chairmen of both major political parties, the Lieutenant Governor, and other military and political figures attended the function.

GREATER LOS ANGELES CHAPTER—Chapter held reception on 10 June for the Hon. George H. Roderick, Assistant Secretary of the Army, and Maj. Gen. Holger N. Toftoy, CG, Aberdeen Proving Ground.

GREATER COLUMBIA CHAPTER, Columbia, S. C.—Lt. Gen. Clark L. Ruffner, CG, Third Army, presented the Chapter's Charter to Brig. Gen. William N. Cork, Provisional President, on 19 June. Mr. Stanley Zuc, VA Regional Office Assistant Manager, was elected President for the coming year.

HEADQUARTERS SEVENTH U. S. ARMY CHAPTER—Lt. Gen. F. W. Farrell, CG, Seventh Army, was principal speaker at meeting on 9 June, stressing the Communist ability to achieve their ends by small-scale

hostilities, and encouraging the members to be "flexible, realistic, and imaginative."

HEIDELBERG CHAPTER—New officers elected at meeting on 18 June.

INDIANA CHAPTER—Chapter has membership committee spread throughout the state. Meeting on 4 June heard Mr. William H. Book, Executive VP of the Indianapolis Chamber of Commerce, speak on "A Businessman's View of the Army." The speech, hard-hitting and frank, resulted in a discussion period that did much to clear misconceptions on both sides of the civilian-military fence.

OZARK CHAPTER—Chapter installed officers on 20 May at Officers Open Mess.

PALM BEACH CHAPTER—Mr. William Courtenay, famed British war correspondent who has talked to many AUSA chapters, was principal speaker at meeting on 3 June. New officers elected. Chapter has been active in Nike-Bomarc discussions.

RYUKYUS CHAPTER—Col. R. F. Field, Chapter President, presented lectern to Dr. Genshu Asato, President of the University of the Ryukyus, on behalf of General Lemnitzer, on 19 May.

ST. LOUIS CHAPTER—The Hon. Courtney Johnson, Assistant Secretary of the Army (Logistics) addressed the Chapter on 28 May.

WILLIAM PENN CHAPTER—Mr. William Courtenay addressed Chapter on 4 June. Chapter arranged to have Mr. Courtenay speak on three radio programs and a TV news program. More than 250 members and guests attended meeting.



FORT CARSON, COLO. Dr. Frank Leitnaker, Security Village Kiwanis Club president, hands over 37 memberships, representing 100 per cent, to Lt. Col. Jasper Ackerman, President of Pikes Peak Chapter, at recent meeting. Lt. Col. Edward W. McGregor, left, briefs groups on newest developments at Carson.



SAN DIEGO, CALIF. Lt. Col. Jack M. Warner, President of Los Angeles Chapter, acting for AUSA, presents charter to newly formed San Diego Chapter to Col. Frank G. Forward, President. At center is George H. Roderick, Assistant Secretary of the Army, who attended.



OAKLAND, CALIF. Arthur C. Ames, President of East Bay Chapter, presents awards to Col. Earl W. Hunting, Secretary (left), and Maj. Gen. William F. Dean, Honorary Board Member (center), at the annual meeting on 14 May at the Officers Open Mess at Oakland Army Terminal. (Oakland Tribune photo)



OKINAWA. Col. R. F. Field, President of Ryukyus Chapter, presents new lectern to Dr. Genshu Asato, President of University of the Ryukyus, in behalf of Gen. L. L. Lemnitzer, then Acting Chief of Staff, at ceremonies on 19 May.

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The Adj. Gen. of Pa.
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Supl. Valley Forge Mil. Acad.
Wayne, Pa.



PAUL L. DAVIES
Pres. Food Mach. & Chem. Corp.
San Jose, Calif.

ROTC COMPANIES

COLORADO STATE UNIVERSITY COMPANY—Capt. Harold Birch, platoon leader in Korea, spoke to meeting on 27 May on prisoners of war. Earlier the Company visited Air Force Academy, and received congratulations for its part in setting up Army exhibits for "College Days" celebration. Summer camp orientation program took place on 13 May.

FARRIS-WARE COMPANY, Prairie View A & M College—Company writes to each cadet accepted for Advanced Course (MS III), inviting him to consider AUSA membership, and outlining qualifications required.

LASALLE ROTC COMPANY, LaSalle Military Academy—Meeting on 23 May included report of visit to U. S. Merchant Marine Academy in April, and Banquet following visit. Sixteen cadets were accepted into the Company.

LOYOLA COLLEGE COMPANY, Baltimore, Md.—At meeting on 22 May activities for following year were planned.

MOCASIN COMPANY, University of Chattanooga—May dinner meeting honored both parting and incoming Company Advisers. Two delegates elected to attend AUSA's 1959 Annual Meeting. Capt. Edwin T. Nance, departing Adviser, was presented with engraved cigarette lighter as a token of appreciation for his interest and assistance.

MONTANA STATE UNIVERSITY ROTC COMPANY—Tape recording "Evaluation of the American Soldier in Combat," was feature of meeting on 6 May. Tape records reactions of Army psychiatrist studying American POWs in Korean conflict.

UNIVERSITY OF IDAHO COMPANY—Company has finished unusually active AUSA year, with good start assured by attendance of four Company members at AUSA Annual Meeting last October. The interest generated by these cadets gave the Company an impetus that resulted in good programs and good attendance at meetings. The AUSA year ended with reception for Maj. Gen. Francis M. Day, CG, IX Corps, and the annual Military Ball, held on 15 May.

UNIVERSITY OF WASHINGTON ROTC COMPANY—Charter meeting held on 29 April; Col. Corston A. Greene, PMST, presented charter to

OF THE ASSOCIATION OF THE U. S. ARMY - 1959-60



KARL R. BENDETSEN
Vice Pres. Champion Paper &
Fibre Co.
Hamilton, O.



ROBERT L. BIGGERS
Vice Pres. Chrysler Corp.
Detroit, Mich.



Lt. Gen. EDWARD H. BROOKS
Concord, N. H.



Gen. JOHN E. DAHLQUIST
Dir. Armed Forces Dept.
Harris, Upham & Co.
Washington, D. C.



Gen. JACOB L. DEVERS
Washington, D. C.



Lt. Gen. MANTON S. EDDY
National Bank of Ft. Benning
Fort Benning, Ga.



Gen. JOHN E. HULL
Pres. Mig. Chem. Assn.
Washington, D. C.



Gen. M. B. RIDGWAY
Chm. Bd.
Mellon Inst. Indus. Rsch.
Pittsburgh, Pa.

Cadet George W. Sinnett, Captain of the Company. Three officers, including Colonel Greene, spoke on MAAG duty. New officers installed on 27 May; same meeting planned programs for next school year.

VIRGINIA POLYTECHNIC INSTITUTE COMPANY—Sixteen cadets initiated at banquet on 7 May. Guest speaker was Mr. Mark Oliver, Assistant Alumni Secretary of VPI.

AUSA MEDAL AWARDS

THROUGH 30 JUNE 1959

ROTC Cadets

Allen Military Academy: Horace Chester Jones, Jr.; Bowdoin College: Peter Anderson; Colorado State University: Jeris A. Danielson; Columbia Military Academy: Joseph F. Fish; Creighton University: Donald L. Cleveland; Florida Southern College: Howard McMichael, Jr.; Fork Union Military Academy: C. R. Niford; Henderson State College: Donald Houston Jolly; Hofstra College: Warren G. Millett.

Iowa State College: Vernon Leon Schwenk, Ronald Dean Rasmussen, Jay Arthur Harvey; Knox College: George C. Hook, II; LaSalle Military Academy: Francis J. Russo; Marion Institute: Joseph N. Cunningham, Jr., Joseph W. Mathews, Jr.; McNeese State College: Shelby R. Adams; Mercer University: James C. Holliday.

Missouri Military Academy: Hallock W. Reisel; Missouri School of Mines: Lawrence A. Boston; Morgan Park Military Academy: Bion L. Smalley; Northeast Louisiana State College: Willie E. Brock; Northwestern State College of Louisiana: Eugene W. Scott, Jr.; Oklahoma Military Academy: Max E. Durkee, Benson P. Landrum; Pennsylvania Military College: Ronald A. Duchin; Prairie View A&M College: Frederick L. Greene.

Sam Houston State Teachers College: William M. Wagisbach; Riverside Military Academy: Robert W. Carrier; Saint Norbert College: Thomas W. Johnson; Saint Thomas Military Academy: Gregory A. Reymann; Seattle University: David G. Moore; Texas Christian University: Warner M. Bailey; University of Dayton: Paul J. Daleiden; University of Georgia: Robert F. Towns.

University of Pennsylvania: David C. Tseng; University of Wisconsin: David W. Kent, John G. Kester, Henry G. Kauffman, William Sensiba; Valley Forge Military Academy: William A. Fritz, John W. Bowers, Jr.; Washington & Lee University: Charles G. Buffum, III; West Virginia State College: Jack L. Wood, Jr.; Wheaton College: Robert L. Brabenc.

AUSA SPEAKS FOR A STRONG ARMY

Here is a sampling of the Nationwide press reaction to AUSA's new study of current problems

The New York T

THE WASHINGTON POST and TIMES HERALD

Association of Army Urges Cuts in SAC

WASHINGTON POST by Charles W. Coddry MAY 3 1959
United Press International

The Association of the Forces sufficient to transport two divisions from this country to any part of the world, Administration military policies report said.

A-12

THE SUNDAY STAR
Washington, D. C., Sunday, May 3, 1959

Army Association Asks More Ground Troops

By L. EDGAR PRINA
Star Staff Writer

The administration was hit by demands for more ground troops

One came from the congressional side with Senator Douglas, Democrat of Illinois, predicting that Congress will call for more men in the vote a mandatory floor of 90,000 men for the Army and weapons and equipment.

2A LINCOLN SUNDAY JOURNAL AND STAR

U.S. Charged With Relying Too Heavily on Atom Arms

Compiled From News Wires

Washington — The Assoc. of the United States Army says over-reliance on hydrogen weapons is forcing American diplomacy and strategy into an all-or-nothing pattern.

In a critique on current defense policy, the association said

"The present military posture of the United States is out of balance and incapable of exerting its full influence on war and cold war situations that lie on that broad spectrum between a simple 'showing of the flag' at one end and thermonuclear war at the other end."

The association also urged a cut in the Strategic Air Command.

"Not only have we overbuilt SAC," the association said, "we have overlooked the fact that most of the targets originally assigned to SAC are now well within the capability of the fleet and the (tactical) air forces."

Army Association Asserts U. S. Lacks Defense Flexibility

Special to The New York Times
WASHINGTON, May 2 — The Association of the United States Army denounced today policies that it said were leaving the nation with no choice in international affairs but to "show the flag" or engage in thermonuclear warfare.

The association's attack came as Senator Henry M. Jackson, Democrat of Washington, announced he would introduce

APRIL (Daily) Monday to Friday)
14,220 | SUNDAY 320,092

Over-Reliance On Nuclear Weapons Charged To U.S.

Washington, May 3 (UPI)—The association of the United States Army says over-reliance on hydrogen weapons and thermonuclear war at the other end.

The association is headed by Maj. Gen. Anthony J. Drexel Biddle, retired. A committee which recommended the resolution said its

May 3, 1959

OUR DEFENSE UNBALANCED?

Yes, Says Association of the U.S. Army

(The following is an excerpt from an Association of the United States Army report "The Security of the Nation" which was written by a special committee under the direction of Gen. M. B. Ridgway.)

THE present military posture of the United States is out of balance and incapable of exerting its full influence on war and cold war situations that lie on that broad spectrum between a simple "showing of the flag" at one end and nuclear war at the other.

We hope and believe that Congress

If they can see distinct advantages accruing to them, there is little doubt that the Soviet Union would be willing to embark on all other types of conflict; that is, wars limited either in the areas in which they are fought in the kind of weapons used.

In testimony before a committee earlier, Taylor argued that the association has overbuilt strength. "With those vehicles

targets originally assigned to SAC are now well within the capability of the fleet and the (tactical) air forces."

THE ASSOCIATION OF THE U. S. ARMY contends in a newly issued statement that "Not only have we overlooked the fact that most of the targets originally assigned to SAC are now well within the capability of the fleet and the (tactical) air forces."

The suggestion was made that retaliatory forces can be "considerably reduced without harm to the Nation's security."

ST. LOUIS POST-DISPATCH

NEW YORK HERALD TR

ARMY ASSOCIATION SCORES U. S. POLICY

H-BOMB POLICY VIEWED AS MOLD FOR DIPLOMACY

Continued From Page 1, Col. 2
lected the development of its selected-war capabilities and had developed too great a force for strategic thermonuclear warfare.

The association's attack came as Senator Henry M. Jackson, Democrat of Washington, announced he would introduce

U.S. Army Association Says Over-Reliance on H-Bomb Forces All-Out Thinking.

Army Group Hits Stress On H-Arms

As Forcing Policy Of 'All-or-Nothing'

WASHINGTON, May 3 (UPI)—The Association of the United States Army says over-reliance on hydrogen weapons is forcing American diplomacy and strategy into an all-or-nothing



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BALTIMORE, SUNDAY, MAY 3, 1959

Second-class authorized

U.S. Policy Seen Increasing Nuclear Conflict Peril

(Continued from Page 1) a cutback program. And the report declared that

"The bitter truth is that today the United States Army is not only outmanned by the Communists, it is outgunned."

The report estimated that 60,000 men in the Army's present

Air Cut, Buildup Of 'Little War' Army Proposed

WASHINGTON May 2 (UPI)—The Association of the U. S. Army, attacking Administration military policies, called today for a cut in the Strategic Air Command and an increase in ground forces.

The association charged the Government with "overreliance on thermonuclear weapons" and neglect of the kind of forces necessary for preventing or winning limited war.

The association is a sort of unofficial voice of the Army made up of 60,000 retired officers, other veterans and persons generally interested in furthering the Army's aims.

The report, entitled "The Security of the Nation," was prepared under supervision of a committee headed by Gen. Matthew B. Ridgway, former Chief of Staff who long was at odds

with the association.

This is just one example of how AUSA speaks out vigorously for a strong Army as a vital part of our National Defense.

You can strengthen our voice by using the attached application envelope to Sign Up A Friend as a new member of AUSA. And be sure to renew your own membership promptly. DO IT NOW.

A NEW CHAPTER
IN AIR POWER



"Hound Dog" missiles, launched from far-ranging B-52s, vastly increase the capability of SAC's bomber fleet.



North American's "Hound Dog" missile is powered by the Pratt & Whitney Aircraft J-52 jet engine. The B-52 bomber is also powered by Pratt & Whitney Aircraft engines—eight J-57s.



This is just another example of Pratt & Whitney Aircraft's leadership in flight propulsion, in whatever form it takes.



POWER IS THE KEY!

Flight's historic limitations are being overcome. Today's speeds, distances, and altitudes will soon be extended even beyond the frontiers that research is just now reaching.

The key to this exciting future is power . . . dependable power, to meet any requirement of flight. And dependable power is our business.

In the area of nuclear propulsion, for example, Pratt &

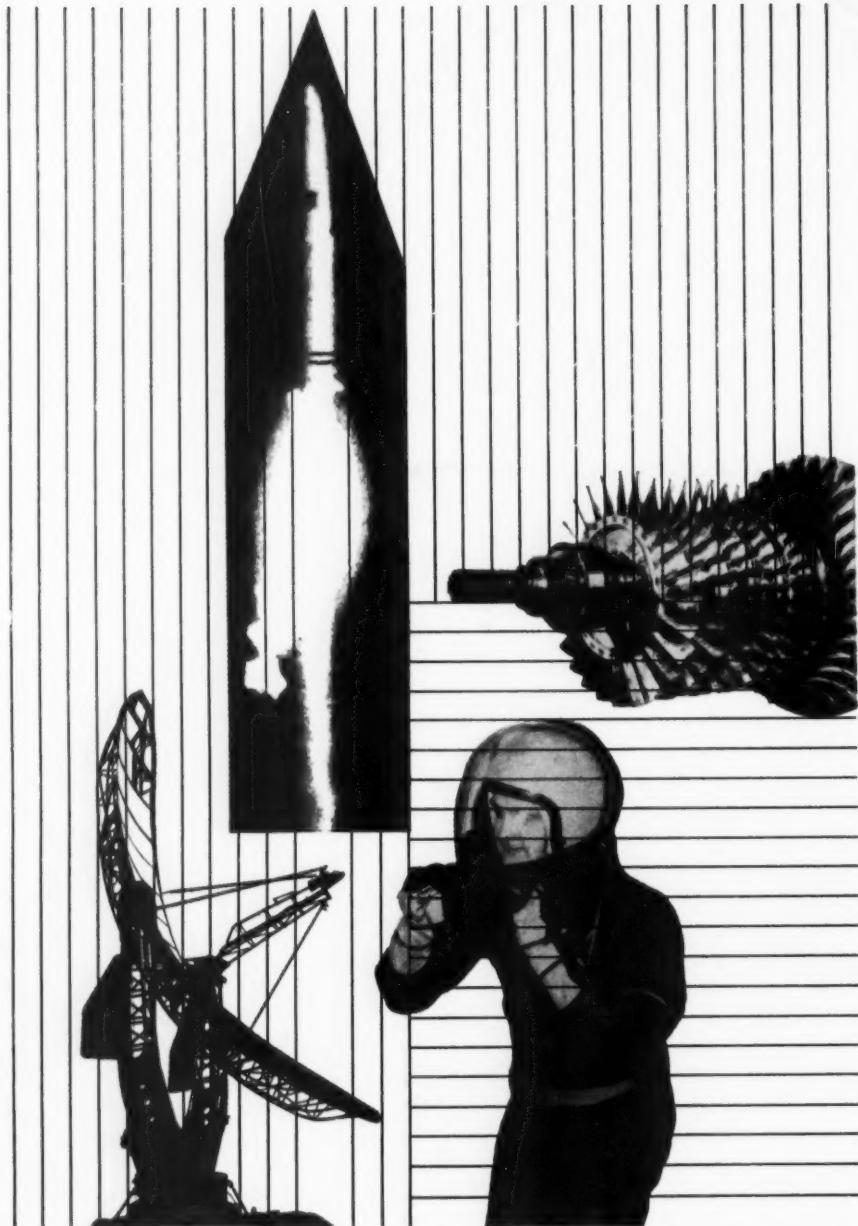
Whitney Aircraft has demonstrated important technical achievements which only a year ago were considered impossible or highly improbable. Major accomplishments have also been made in high-energy liquid propellant rocket engines, and other advanced applications of power for flight. These advances are opening the way for ultra-long-range aircraft, as well as for vehicles of space travel.

Flight Propulsion by **PRATT & WHITNEY AIRCRAFT**

East Hartford, Connecticut
A division of United Aircraft Corporation



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ANN ARBOR MICH
MICROFILMS



Avco: Men and Machines for Defense. No amount of lost motion can be endured in America's space-age defense programs. Progress must be swift and continuous. Avco, alert to its needs, helps to maintain America's strength: Avco-Everett Research Laboratory—investigating problems in physical gas dynamics and space technology; Crosley—communications, radar, infrared, electronic control systems, missile fuzing; Lycoming—aircraft, marine, industrial power plants; missile subsystems; Nashville—aircraft and missile aluminum and stainless steel structures; Research and Advanced Development Division—basic and applied research in electronics, physical sciences, and advanced engineering.

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